

# INOVATO

## CONTROL EQUIPMENT PRODUCT MANUAL

益诺威拓控制设备  
产品手册





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## About us

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Ningbo Innovator Control Equipment Co., Ltd. is located in Yuyao City, Zhejiang Province. We are an innovation-oriented manufacture, integrating technological innovation, product research and development, production and sales, and customer service. Our research and development team has 20 years of product development and manufacturing experience in the intelligent irrigation industry. And we are specialized in intelligent irrigation system, pop-up sprinklers, valves, and controllers.

We continues to promote technological innovation and improve our manufacturing level to intelligent manufacturing and lead the industry's needs. We adhere to the production of global professional intelligent control products and the application areas of the products include agricultural irrigation, landscaping, animal husbandry, smart courtyards, and golf courses. And we provide industry-leading intelligent control integrated solutions.

**Our Spirit:** We have the pioneering and innovative spirit and are eager to progress.

**Our Vision:** To build a world-class technology enterprise and create a harmonious and beautiful life.

**Our Mission:** Every family can enjoy a green and healthy life.

**Our Values:**The product is like the personal character and the quality is life. We will focus on customer satisfaction and create values for our customers.



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# 地埋系列

## POP-UP SPRINKLERS

Available for different pop-up heights. It has a two-piece ratcheting riser, which is reliable and durable. The male-threaded riser is compatible with all INVOTA female-threaded nozzles. It has two versions. One is nozzle preinstalled version, which has a large filter screen for debris resistance. And the other one is plug preinstalled version, which is available without a nozzle or filter screen. All FN nozzles are compatible with this sprinkler.



## Applications Comparison

| APPLICATIONS   | GF | SF |
|----------------|----|----|
| Shrubs         | ⊙  | ⊙  |
| Agriculture    |    | ⊙  |
| Garden         | ⊙  | ⊙  |
| Courtyard      |    | ⊙  |
| Municipalities |    | ⊙  |
| Golf Course    |    | ⊙  |

△ Optional check valve available

## Our Advantage

### CO-MOLDED WIPER SEAL

Molded with two types of chemical and chlorine-resistant materials, this multi-function wiper seal reduces flow-by, allowing more heads on one zone, and prevents debris from entering the seal, reducing riser stick-ups.



### FLOGUARD TECHNOLOGY

In the event of a missing nozzle, Flo Guard technology reduces the flow of water from the riser to a 1.9L/MIN(3M tall) indicator stream, eliminating water waste and preventing landscape erosion while providing a visual indicator for repair.



### HEAVY-DUTY SPRING

The industry's strongest spring offers positive retraction under any conditions.



### INDUSTRY'S STRONGEST SPRAY BODY

The sprinkler incorporates a heavy-duty ribbed body and durable cap engineered to withstand the harshest environments, including the rigors of foot traffic and the abuses of heavy machinery. In addition, the buttress thread design provides superior strength in cap-to-body gripping capacity, helping the head to withstand high inlet surge pressures.



# GF

02”、04”、06”

## Applications

It is applied to turfgrass, shrubs, garden, etc.

## Features

- Small exposed cover for more attractive landscapes.
- Compact shape makes it more economical.
- Pressure-activated wiper seal prevents excessive flow-by and water waste and keeps debris from entering upon retraction.
- Constructed of durable materials including corrosion resistant stainless steel.
- Male threaded riser to accept all INOVATO female nozzles.

## Operating Specifications

- Recommended pressure range:1.0~4.8 bar
- Radius:2.5 - 9.1m
- Connection:1/2” female thread

## Factory Installed Options

- Drain check valve:10cm,15cm models (up to 2m of elevation)
- Flush plug (large basket filter screen not included)

## Detailed Pictures



## Operating Picture



### GF02

overall height:12.7cm  
Pop up height:5cm  
exposure diameter:3cm  
inlet size:1/2” female thread



### GF04

overall height:18.4cm  
pop up height:10cm  
exposure diameter:3cm  
inlet size:1/2” female thread



### GF06

overall height:24.1cm  
pop up height:15cm  
exposure diameter:3cm  
inlet size:1/2” female thread

# SF

02”、03”、04”

## Applications

It is applied to turfgrass, shrubs, garden, etc.

## Features

- Small exposed cover for more attractive landscapes.
- Compact shape makes it more economical.
- Pressure-activated wiper seal prevents excessive flow-by and water waste and keeps debris from entering upon retraction.
- Constructed of durable materials including corrosion resistant stainless steel.
- Male threaded riser to accept all INOVATO female nozzles.

## Operating Specifications

- Recommended pressure range:1.0~7.0 bar
- Optimum working pressure: 2.1 bar
- Connection: 1/2”female thread

## Factory Installed Options

- Drain check valve: 10cm, 15cm, 30cm models (up to 3m of elevation)
- Reclaimed water ID cap

## Detailed picture



## Operating picture



### SF02

overall height:10cm  
Pop up height:5cm  
exposure diameter:5.7cm  
inlet size: 1/2” female thread



### SF03

overall height:12.5cm  
Pop up height:7.5cm  
exposure diameter:5.7cm  
inlet size: 1/2” female thread



### SF04

overall height:15.5cm  
Pop up height:10cm  
exposure diameter:5.7cm  
inlet size: 1/2” female thread



### SF06

overall height:22.5cm  
Pop up height:15cm  
exposure diameter:5.7cm  
inlet size: 1/2” female thread

### SF12

overall height:41cm  
Pop up height:30cm  
exposure diameter:5.7cm  
inlet size: 1/2” female thread

# FF NOZZLES

4A, 6A, 8A, 10A, 12A, 15A, 17A

## Applications

It is applied to turfgrass, shrubs, garden, etc.

## Features

- Well-defined edges
- Matched precipitation rate of 1.2m to 5.2m
- Easy grip top to simple adjustment
- Designed with large water droplets to withstand light winds
- Even distribution results in beautiful pattern
- Color-coded for easy field identification
- Adjustable from 0° to 360°

## Operating Specifications

- Recommended operating pressure: 2.1 bar



## Operating pictures







# RF NOZZLES

RF

## Application

It is applied to turfgrass, shrubs, garden, etc.

## Features

- True matched precipitation any arc or radius setting
- Radius can be reduced up to 25% on all models
- Color-coded for easy identification
- Removable filter screen prevents large objections from clogging nozzle
- Low precipitation rate
- Wind-resistant multi-stream technology
- Adjustable arc and radius.




VERTICAL VIEW


## Operation Specification

- Recommended working pressure: 2.8 bar


| Performance Data |  | RF LS               | RF RS          | RF SS                             |
|------------------|--|---------------------|----------------|-----------------------------------|
| RF NOZZLES       |  | Dark purple         | Olive green    | Mocha brown                       |
|                  |  | Pressure<br>bar kPa | Radius<br>m    | Flow<br>m <sup>3</sup> /hr<br>l/m |
| Left Strip       |  | 1.7 170             | 1.1*4.2        | 0.04 0.67                         |
|                  |  | 2.0 200             | 1.2*4.3        | 0.04 0.72                         |
|                  |  | 2.5 250             | 1.4*4.5        | 0.05 0.79                         |
|                  |  | <b>2.8 280</b>      | <b>1.5*4.6</b> | <b>0.05 0.84</b>                  |
|                  |  | 3.0 300             | 1.6*4.7        | 0.06 0.87                         |
|                  |  | 3.5 350             | 1.7*4.8        | 0.06 0.94                         |
| Right Strip      |  | 1.7 170             | 1.1*4.2        | 0.04 0.67                         |
|                  |  | 2.0 200             | 1.2*4.3        | 0.04 0.72                         |
|                  |  | 2.5 250             | 1.4*4.5        | 0.05 0.79                         |
|                  |  | <b>2.8 280</b>      | <b>1.5*4.6</b> | <b>0.05 0.84</b>                  |
|                  |  | 3.0 300             | 1.6*4.7        | 0.06 0.87                         |
|                  |  | 3.5 350             | 1.7*4.8        | 0.06 0.94                         |
| Right Strip      |  | 1.7 170             | 1.1*8.3        | 0.08 1.34                         |
|                  |  | 2.0 200             | 1.2*8.6        | 0.09 1.43                         |
|                  |  | 2.5 250             | 1.4*8.9        | 0.09 1.57                         |
|                  |  | <b>2.8 280</b>      | <b>1.5*9.1</b> | <b>0.10 1.66</b>                  |
|                  |  | 3.0 300             | 1.6*9.3        | 0.10 1.72                         |
|                  |  | 3.5 350             | 1.7*9.6        | 0.11 1.87                         |
|                  |  | 3.8 380             | 1.8*9.9        | 0.12 1.96                         |



RF LS  
Left Strip  
1.5\*4.6m




RF RS  
Right Strip  
1.5\*4.6m




RF SS  
Side Strip  
1.5\*9.1m

**RF strip pattern**

| Performance Data |  | RF                  | RF           |                                   |
|------------------|--|---------------------|--------------|-----------------------------------|
| RF NOZZLES       |  | Corner Blue         | Corner Green |                                   |
|                  |  | Pressure<br>bar kPa | Radius<br>m  | Flow<br>m <sup>3</sup> /hr<br>l/m |
| 45°              |  | 1.7 170             | --           | --                                |
|                  |  | 2.0 200             | 3.5          | 0.04 0.61                         |
|                  |  | 2.5 250             | 4.0          | 0.04 0.68                         |
|                  |  | <b>2.8 280</b>      | <b>4.1</b>   | <b>0.04 0.70</b>                  |
|                  |  | 3.0 300             | 4.3          | 0.04 0.73                         |
|                  |  | 3.5 350             | 4.4          | 0.05 0.78                         |
| 90°              |  | 1.7 170             | 3.2          | 0.07 1.15                         |
|                  |  | 2.0 200             | 3.5          | 0.08 1.27                         |
|                  |  | 2.5 250             | 4.0          | 0.08 1.40                         |
|                  |  | <b>2.8 280</b>      | <b>4.1</b>   | <b>0.09 1.44</b>                  |
|                  |  | 3.0 300             | 4.3          | 0.09 1.57                         |
|                  |  | 3.5 350             | 4.4          | 0.10 1.67                         |
| 105°             |  | 1.7 170             | 3.2          | 0.08 1.34                         |
|                  |  | 2.0 200             | 3.5          | 0.09 1.48                         |
|                  |  | 2.5 250             | 4.0          | 0.10 1.63                         |
|                  |  | <b>2.8 280</b>      | <b>4.1</b>   | <b>0.10 1.70</b>                  |
|                  |  | 3.0 300             | 4.3          | 0.11 1.83                         |
|                  |  | 3.5 350             | 4.4          | 0.12 1.94                         |
|                  |  | 3.8 380             | 4.5          | 0.12 2.00                         |



RF COR1  
2.4 ~ 4.5m



RF COR2  
2.4 ~ 4.5m

**Corner pattern**

Note: The above data is taken in zero wind conditions.

■ Indicates that the sprinklers are installed in a square. Space based on radius

▲ Indicates that the sprinklers are installed in a triangle. Space based on radius

### / Performance Data

RF NOZZLES

- RF101 Red 90°~210°
- RF 201 Black 90°~210°
- RF 301 Blue 90°~210°
- RF 305 Brown 90°~210°
- RF102 Sky Blue 210°~270°
- RF 202 Green 210°~270°
- RF 302 Yellow red 210°~270°
- RF 303 Gray 360°
- RF103 Lt.Green 360°
- RF 203 Orange 360°

|      | Pressure<br>bar kPa | Radius Flow |             |             |           | Precip mm/h |               |               |             | Radius Flow    |                |            |                 | Precip mm/h    |           |           |             | Radius Flow |              |           |           | Precip mm/h |  |  |  |
|------|---------------------|-------------|-------------|-------------|-----------|-------------|---------------|---------------|-------------|----------------|----------------|------------|-----------------|----------------|-----------|-----------|-------------|-------------|--------------|-----------|-----------|-------------|--|--|--|
|      |                     | m           | m³/hr       | l/m         |           | ■           | ▲             | m             | m³/hr       | l/m            | ■              | ▲          | m               | m³/hr          | l/m       | ■         | ▲           | m           | m³/hr        | l/m       | ■         | ▲           |  |  |  |
| 90°  | 1.7 170             | --          | --          | --          | --        | --          | --            | 5.2 0.08 1.29 | 12          | 13             | 7.6 0.16 2.69  | 11         | 13              | 10.1 0.24 3.94 | 9         | 11        |             |             |              |           |           |             |  |  |  |
|      | 2.0 200             | 3.7         | 0.04        | 0.64        | 11        | 13          | 5.5 0.09 1.44 | 12            | 13          | 8.2 0.17 2.88  | 10             | 12         | 10.4 0.26 4.28  | 10             | 11        |           |             |             |              |           |           |             |  |  |  |
|      | 2.5 250             | 4.0         | 0.04        | 0.72        | 11        | 13          | 5.8 0.09 1.52 | 11            | 13          | 8.5 0.19 3.11  | 10             | 12         | 10.4 0.28 4.58  | 10             | 12        |           |             |             |              |           |           |             |  |  |  |
|      | <b>2.8 280</b> ●    | <b>4.1</b>  | <b>0.05</b> | <b>0.80</b> | <b>11</b> | <b>13</b>   | <b>6.1</b>    | <b>0.10</b>   | <b>1.63</b> | <b>11</b>      | <b>12</b>      | <b>9.1</b> | <b>0.20</b>     | <b>3.26</b>    | <b>10</b> | <b>11</b> | <b>10.7</b> | <b>0.29</b> | <b>4.84</b>  | <b>10</b> | <b>12</b> |             |  |  |  |
|      | 3.0 300             | 4.3         | 0.06        | 0.87        | 11        | 13          | 6.4 0.11 1.74 | 10            | 12          | 9.1 0.21 3.41  | 10             | 12         | 10.7 0.31 5.22  | 11             | 13        |           |             |             |              |           |           |             |  |  |  |
|      | 3.5 350             | 4.5         | 0.06        | 0.95        | 11        | 13          | 6.4 0.11 1.78 | 11            | 12          | 9.1 0.22 3.60  | 11             | 12         | 10.7 0.33 5.41  | 11             | 13        |           |             |             |              |           |           |             |  |  |  |
|      | 3.8 380             | 4.5         | 0.06        | 1.02        | 12        | 14          | 6.4 0.11 1.82 | 11            | 12          | 9.1 0.23 3.83  | 11             | 13         | 10.7 0.34 5.68  | 12             | 14        |           |             |             |              |           |           |             |  |  |  |
| 180° | 1.7 170             | --          | --          | --          | --        | --          | --            | 4.9 0.14 2.27 | 11          | 13             | 7.6 0.33 5.46  | 11         | 13              | 10.1 0.50 8.36 | 10        | 11        |             |             |              |           |           |             |  |  |  |
|      | 2.0 200             | 3.7         | 0.08        | 1.29        | 11        | 13          | 5.2 0.15 2.43 | 11            | 13          | 8.2 0.36 5.99  | 11             | 12         | 10.4 0.51 8.48  | 9              | 11        |           |             |             |              |           |           |             |  |  |  |
|      | 2.5 250             | 4.0         | 0.09        | 1.44        | 11        | 13          | 5.5 0.16 2.69 | 11            | 12          | 8.5 0.39 6.44  | 11             | 12         | 10.4 0.60 10.03 | 11             | 13        |           |             |             |              |           |           |             |  |  |  |
|      | <b>2.8 280</b> ●    | <b>4.1</b>  | <b>0.10</b> | <b>1.59</b> | <b>11</b> | <b>13</b>   | <b>5.8</b>    | <b>0.18</b>   | <b>2.92</b> | <b>11</b>      | <b>12</b>      | <b>9.1</b> | <b>0.42</b>     | <b>6.90</b>    | <b>10</b> | <b>12</b> | <b>10.7</b> | <b>0.65</b> | <b>10.83</b> | <b>11</b> | <b>13</b> |             |  |  |  |
|      | 3.0 300             | 4.3         | 0.10        | 1.67        | 11        | 13          | 6.1 0.20 3.22 | 11            | 12          | 9.1 0.44 7.31  | 11             | 12         | 10.7 0.70 11.73 | 12             | 14        |           |             |             |              |           |           |             |  |  |  |
|      | 3.5 350             | 4.4         | 0.12        | 1.90        | 11        | 13          | 6.4 0.21 3.45 | 10            | 12          | 9.1 0.47 7.73  | 11             | 13         | 10.7 0.73 12.15 | 13             | 15        |           |             |             |              |           |           |             |  |  |  |
|      | 3.8 380             | 4.5         | 0.12        | 1.93        | 12        | 13          | 6.4 0.22 3.60 | 11            | 12          | 9.1 0.49 8.07  | 12             | 14         | 10.7 0.75 12.41 | 13             | 15        |           |             |             |              |           |           |             |  |  |  |
| 210° | 1.7 170             | --          | --          | --          | --        | --          | --            | 4.9 0.17 2.73 | 12          | 14             | 7.6 0.39 6.37  | 11         | 13              | 10.1 0.59 9.80 | 10        | 12        |             |             |              |           |           |             |  |  |  |
|      | 2.0 200             | 3.7         | 0.09        | 1.52        | 12        | 13          | 5.2 0.17 2.84 | 11            | 13          | 8.2 0.42 6.97  | 11             | 12         | 10.4 0.65 10.75 | 10             | 12        |           |             |             |              |           |           |             |  |  |  |
|      | 2.5 250             | 4.0         | 0.10        | 1.71        | 11        | 13          | 5.5 0.19 3.07 | 11            | 12          | 8.5 0.46 7.54  | 11             | 13         | 10.4 0.70 11.66 | 11             | 13        |           |             |             |              |           |           |             |  |  |  |
|      | <b>2.8 280</b> ●    | <b>4.1</b>  | <b>0.11</b> | <b>1.86</b> | <b>11</b> | <b>13</b>   | <b>5.8</b>    | <b>0.20</b>   | <b>3.26</b> | <b>10</b>      | <b>12</b>      | <b>9.1</b> | <b>0.49</b>     | <b>8.03</b>    | <b>10</b> | <b>12</b> | <b>10.7</b> | <b>0.75</b> | <b>12.45</b> | <b>11</b> | <b>13</b> |             |  |  |  |
|      | 3.0 300             | 4.3         | 0.12        | 1.93        | 11        | 13          | 6.1 0.21 3.45 | 10            | 11          | 9.1 0.52 8.53  | 11             | 12         | 10.7 0.80 13.40 | 12             | 14        |           |             |             |              |           |           |             |  |  |  |
|      | 3.5 350             | 4.4         | 0.13        | 2.16        | 11        | 13          | 6.4 0.23 3.71 | 9             | 11          | 9.1 0.55 8.98  | 11             | 13         | 10.7 0.85 14.23 | 13             | 15        |           |             |             |              |           |           |             |  |  |  |
|      | 3.8 380             | 4.5         | 0.14        | 2.24        | 11        | 13          | 6.4 0.23 3.83 | 10            | 11          | 9.1 0.57 9.44  | 12             | 14         | 10.7 0.90 14.91 | 13             | 16        |           |             |             |              |           |           |             |  |  |  |
| 270° | 1.7 170             | --          | --          | --          | --        | --          | --            | 4.9 0.20 3.30 | 11          | 13             | 7.6 0.50 8.30  | 12         | 13              |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 2.0 200             | 3.7         | 0.11        | 1.82        | 11        | 12          | 5.2 0.22 3.60 | 11            | 12          | 8.2 0.55 8.98  | 11             | 12         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 2.5 250             | 4.0         | 0.12        | 2.01        | 10        | 12          | 5.5 0.24 3.90 | 10            | 12          | 8.5 0.59 9.66  | 11             | 12         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | <b>2.8 280</b> ●    | <b>4.1</b>  | <b>0.14</b> | <b>2.39</b> | <b>11</b> | <b>13</b>   | <b>5.8</b>    | <b>0.25</b>   | <b>4.17</b> | <b>10</b>      | <b>12</b>      | <b>9.1</b> | <b>0.63</b>     | <b>10.35</b>   | <b>10</b> | <b>12</b> |             |             |              |           |           |             |  |  |  |
|      | 3.0 300             | 4.3         | 0.15        | 2.54        | 11        | 13          | 6.1 0.27 4.43 | 10            | 11          | 9.1 0.66 10.95 | 11             | 12         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 3.5 350             | 4.4         | 0.17        | 2.73        | 11        | 13          | 6.4 0.28 4.66 | 9             | 11          | 9.1 0.70 11.60 | 11             | 13         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 3.8 380             | 4.5         | 0.17        | 2.84        | 11        | 13          | 6.4 0.30 4.93 | 10            | 11          | 9.1 0.74 12.20 | 12             | 14         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
| 360° | 1.7 170             | --          | --          | --          | --        | --          | --            | 4.9 0.28 4.55 | 11          | 13             | 7.6 0.66 10.92 | 11         | 13              |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 2.0 200             | 3.5         | 0.16        | 2.62        | 12        | 13          | 5.2 0.29 4.85 | 11            | 13          | 8.2 0.72 11.94 | 11             | 12         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 2.5 250             | 4.0         | 0.18        | 2.92        | 11        | 13          | 5.5 0.32 5.19 | 10            | 12          | 8.5 0.78 12.89 | 11             | 12         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | <b>2.8 280</b> ●    | <b>4.1</b>  | <b>0.19</b> | <b>3.18</b> | <b>11</b> | <b>13</b>   | <b>5.8</b>    | <b>0.34</b>   | <b>5.61</b> | <b>10</b>      | <b>12</b>      | <b>9.1</b> | <b>0.84</b>     | <b>13.80</b>   | <b>10</b> | <b>12</b> |             |             |              |           |           |             |  |  |  |
|      | 3.0 300             | 4.3         | 0.20        | 3.34        | 11        | 13          | 6.1 0.36 5.95 | 10            | 11          | 9.1 0.89 14.63 | 11             | 12         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 3.5 350             | 4.4         | 0.23        | 3.71        | 11        | 13          | 6.4 0.39 6.37 | 9             | 11          | 9.1 0.94 15.43 | 11             | 13         |                 |                |           |           |             |             |              |           |           |             |  |  |  |
|      | 3.8 380             | 4.5         | 0.23        | 3.83        | 11        | 13          | 6.4 0.40 6.59 | 10            | 11          | 9.1 0.98 16.18 | 12             | 14         |                 |                |           |           |             |             |              |           |           |             |  |  |  |



RF101 90°~210°    RF102 210°~270°    RF103 360°    RF201 90°~210°    RF202 210°~270°    RF203 360°    RF301 90°~210°    RF302 210°~270°    RF303 360°    RF305 90°~210°

RF1000:2.5~4.5m

RF2000:4~6.4m

RF3000:6.7~9.1m

RF3500:  
9.1~10.7m

# RF NOZZLES

HIGH EFFICIENCY NOZZLE WITH SHORT RADIUS

## Application

It is applied to turfgrass, shrubs, garden, etc.

## Features

- Radius: 1.8~3.5m
- Color-coded for easy identification.
- Removable filter screen prevents large objections from clogging nozzle
- Low precipitation rate increasing irrigation efficiency
- Wind-resistant multi-stream technology
- Adjustable arc and radius.

## Operating Data


- Recommended working pressure: 2.8 bar
- Recommend to use pure water




**Performance Data** RF NOZZLES

● RF 61201 Green 90°~210°  
● RF 61202 Purple 360°

|         | Pressure<br>bar kPa | maximum radius |                            |             |                   | minimum radius |                           |             |             |
|---------|---------------------|----------------|----------------------------|-------------|-------------------|----------------|---------------------------|-------------|-------------|
|         |                     | Radius<br>m    | Flow<br>m <sup>3</sup> /hr | Flow<br>l/m | Precipmm/h<br>■ ▲ | Radius<br>m    | Flow<br>m <sup>3</sup> /h | Flow<br>l/m |             |
| 90°     | 2.1 210             | 2.6            | 0.04                       | 0.64        | 23                | 27             | 1.8                       | 0.03        | 0.49        |
|         | 2.5 250             | 2.6            | 0.05                       | 0.78        | 23                | 26             | 2.1                       | 0.03        | 0.55        |
|         | <b>2.8 280</b>      | <b>3.1</b>     | <b>0.05</b>                | <b>0.87</b> | <b>21</b>         | <b>24</b>      | <b>2.4</b>                | <b>0.04</b> | <b>0.61</b> |
|         | 3.0 300             | 3.4            | 0.06                       | 0.95        | 20                | 23             | 2.4                       | 0.04        | 0.68        |
|         | 3.5 350             | 3.5            | 0.06                       | 1.02        | 20                | 23             | 2.7                       | 0.04        | 0.72        |
| 3.8 380 | 3.5                 | 0.06           | 1.06                       | 20          | 23                | 3.0            | 0.05                      | 0.76        |             |
| 180°    | 2.1 210             | 2.6            | 0.07                       | 1.25        | 22                | 26             | 1.8                       | 0.06        | 0.98        |
|         | 2.5 250             | 2.8            | 0.09                       | 1.44        | 22                | 25             | 2.1                       | 0.07        | 1.10        |
|         | <b>2.8 280</b>      | <b>3.0</b>     | <b>0.10</b>                | <b>1.59</b> | <b>21</b>         | <b>24</b>      | <b>2.4</b>                | <b>0.07</b> | <b>1.21</b> |
|         | 3.0 300             | 3.3            | 0.10                       | 1.74        | 19                | 22             | 2.4                       | 0.08        | 1.36        |
|         | 3.5 350             | 3.4            | 0.11                       | 1.82        | 19                | 22             | 2.7                       | 0.09        | 1.44        |
| 3.8 380 | 3.5                 | 0.11           | 1.89                       | 18          | 21                | 3.0            | 0.09                      | 1.51        |             |
| 210°    | 2.1 210             | 2.6            | 0.09                       | 1.44        | 22                | 26             | 1.8                       | 0.07        | 1.15        |
|         | 2.5 250             | 2.8            | 0.10                       | 1.67        | 22                | 25             | 2.1                       | 0.08        | 1.28        |
|         | <b>2.8 280</b>      | <b>3.0</b>     | <b>0.11</b>                | <b>1.85</b> | <b>21</b>         | <b>24</b>      | <b>2.4</b>                | <b>0.08</b> | <b>1.41</b> |
|         | 3.0 300             | 3.2            | 0.12                       | 2.01        | 20                | 23             | 2.4                       | 0.10        | 1.59        |
|         | 3.5 350             | 3.4            | 0.13                       | 2.12        | 19                | 22             | 2.7                       | 0.10        | 1.68        |
| 3.8 380 | 3.5                 | 0.13           | 2.20                       | 18          | 21                | 3.0            | 0.11                      | 1.77        |             |
| 360°    | 2.1 210             | 2.6            | 0.15                       | 2.50        | 23                | 26             | 1.8                       | 0.11        | 1.78        |
|         | 2.5 250             | 2.8            | 0.16                       | 2.69        | 20                | 23             | 2.1                       | 0.12        | 1.97        |
|         | <b>2.8 280</b>      | <b>3.0</b>     | <b>0.18</b>                | <b>2.95</b> | <b>20</b>         | <b>23</b>      | <b>2.4</b>                | <b>0.13</b> | <b>2.12</b> |
|         | 3.0 300             | 3.1            | 0.19                       | 3.22        | 20                | 23             | 2.4                       | 0.13        | 2.23        |
|         | 3.5 350             | 3.3            | 0.20                       | 3.33        | 19                | 21             | 2.7                       | 0.14        | 2.38        |
| 3.8 380 | 3.5                 | 0.22           | 3.71                       | 18          | 21                | 3.0            | 0.16                      | 2.65        |             |



RF61201  
90°~210°




RF61202  
360°

**RF612 Radius: 1.8~3.5m**


**Performance Data** RF NOZZLES

● RF 81601 Pink 90°~210°  
● RF 81602 Orange 210°~270°  
● RF 81603 Yellow 360°


|         | Pressure<br>bar kPa | Radius Flow Flow |                    |             | Precipmm/h |           |
|---------|---------------------|------------------|--------------------|-------------|------------|-----------|
|         |                     | m                | m <sup>3</sup> /hr | l/m         | ■          | ▲         |
| 90°     | 2.1 210             | 4.3              | 0.10               | 1.59        | 21         | 24        |
|         | 2.5 250             | 4.5              | 0.10               | 1.74        | 21         | 24        |
|         | <b>2.8 280</b>      | <b>4.6</b>       | <b>0.11</b>        | <b>1.85</b> | <b>21</b>  | <b>24</b> |
|         | 3.1 310             | 4.8              | 0.12               | 1.97        | 21         | 24        |
|         | 3.5 350             | 4.9              | 0.12               | 2.08        | 21         | 24        |
| 3.8 380 | 4.9                 | 0.13             | 2.20               | 22          | 25         |           |
| 180°    | 2.1 210             | 4.0              | 0.17               | 2.84        | 21         | 25        |
|         | 2.5 250             | 4.3              | 0.20               | 3.26        | 21         | 24        |
|         | <b>2.8 280</b>      | <b>4.5</b>       | <b>0.21</b>        | <b>3.52</b> | <b>21</b>  | <b>24</b> |
|         | 3.1 310             | 4.6              | 0.22               | 3.63        | 21         | 24        |
|         | 3.5 350             | 4.8              | 0.24               | 4.01        | 21         | 24        |
| 3.8 380 | 4.9                 | 0.25             | 4.20               | 21          | 24         |           |
| 210°    | 2.1 210             | 4.0              | 0.20               | 3.33        | 21         | 25        |
|         | 2.5 250             | 4.3              | 0.22               | 3.63        | 20         | 23        |
|         | <b>2.8 280</b>      | <b>4.5</b>       | <b>0.25</b>        | <b>4.16</b> | <b>21</b>  | <b>24</b> |
|         | 3.1 310             | 4.6              | 0.26               | 4.39        | 21         | 25        |
|         | 3.5 350             | 4.8              | 0.28               | 4.69        | 21         | 24        |
| 3.8 380 | 4.9                 | 0.30             | 4.92               | 21          | 24         |           |
| 270°    | 2.1 210             | 4.0              | 0.26               | 4.31        | 22         | 25        |
|         | 2.5 250             | 4.3              | 0.28               | 4.69        | 20         | 23        |
|         | <b>2.8 280</b>      | <b>4.5</b>       | <b>0.32</b>        | <b>5.30</b> | <b>21</b>  | <b>24</b> |
|         | 3.1 310             | 4.6              | 0.33               | 5.56        | 21         | 24        |
|         | 3.5 350             | 4.8              | 0.35               | 5.83        | 20         | 23        |
| 3.8 380 | 4.9                 | 0.37             | 6.09               | 20          | 23         |           |
| 360°    | 2.1 210             | 4.0              | 0.35               | 5.75        | 22         | 24        |
|         | 2.5 250             | 4.3              | 0.39               | 6.43        | 21         | 24        |
|         | <b>2.8 280</b>      | <b>4.5</b>       | <b>0.42</b>        | <b>7.08</b> | <b>21</b>  | <b>24</b> |
|         | 3.1 310             | 4.6              | 0.45               | 7.57        | 21         | 25        |
|         | 3.5 350             | 4.8              | 0.48               | 8.06        | 21         | 24        |
| 3.8 380 | 4.9                 | 0.51             | 8.55               | 21          | 25         |           |



RF81601  
90°~210°



RF81602  
210°~270°



RF81603  
360°

**RF816 Radius: 2.5~4.9m**

# HF01

04"

## Application

It is applied to turfgrass, shrubs, garden, etc.

## Features

- Models:10cm
- Arc setting:40°~360°
- Nozzle choice:8
- Nozzle range:0.5~4.0 blue
- Factory installed rubber cover
- Through-the-top arc adjustment
- Quick check arc mechanism
- Water lubricated gear-drive
- Warranty:2 years

## Operating Specification

- Radius:4.3~10.7m
- Flow:0.08~1.0m³/hr;1.4~16.7l/min
- Recommended working pressure: 1.7~3.8bar; 170~380kPa
- Operating working pressure:1.4~6.9bar; 140~690kPa



## Operating Specification

- Inlet size: 1/2" female
- Precipitation rate: 15mm/hr approx



HF01-04

Overall height: 18cm  
Exposed diameter: 3cm  
Inlet size: 1/2" female

### / Performance Data

HF01 standard blue nozzle

|                            | Pressure |     | Radius<br>m | Flow<br>m <sup>3</sup> /hr | Flow<br>l/m | Precipmm/h |    |
|----------------------------|----------|-----|-------------|----------------------------|-------------|------------|----|
|                            | bar      | kPa |             |                            |             | ■          | ▲  |
| <b>0.50</b><br>■ Blue Haze | 1.7      | 170 | 4.3         | 0.08                       | 1.4         | 9          | 11 |
|                            | 2.0      | 200 | 4.3         | 0.09                       | 1.6         | 10         | 12 |
|                            | 2.5      | 250 | 4.6         | 0.11                       | 1.8         | 10         | 12 |
|                            | 3.0      | 300 | 4.6         | 0.12                       | 2.0         | 12         | 13 |
|                            | 3.5      | 350 | 4.9         | 0.13                       | 2.2         | 11         | 13 |
|                            | 3.8      | 380 | 4.9         | 0.14                       | 2.3         | 12         | 14 |
| <b>0.75</b><br>■ Blue Haze | 1.7      | 170 | 4.3         | 0.13                       | 2.2         | 14         | 17 |
|                            | 2.0      | 200 | 4.6         | 0.14                       | 2.4         | 14         | 16 |
|                            | 2.5      | 250 | 4.9         | 0.16                       | 2.7         | 13         | 15 |
|                            | 3.0      | 300 | 5.2         | 0.18                       | 3.0         | 13         | 15 |
|                            | 3.5      | 350 | 5.2         | 0.19                       | 3.2         | 14         | 17 |
|                            | 3.8      | 380 | 5.5         | 0.20                       | 3.4         | 13         | 15 |
| <b>1.0</b><br>■ Blue Haze  | 1.7      | 170 | 5.2         | 0.18                       | 3.0         | 13         | 15 |
|                            | 2.0      | 200 | 5.5         | 0.19                       | 3.2         | 13         | 15 |
|                            | 2.5      | 250 | 5.5         | 0.21                       | 3.5         | 14         | 16 |
|                            | 3.0      | 300 | 5.8         | 0.23                       | 3.8         | 14         | 16 |
|                            | 3.5      | 350 | 5.8         | 0.24                       | 4.1         | 15         | 17 |
|                            | 3.8      | 380 | 6.1         | 0.25                       | 4.2         | 14         | 16 |
| <b>1.5</b><br>■ Blue Haze  | 1.7      | 170 | 6.1         | 0.27                       | 4.5         | 15         | 17 |
|                            | 2.0      | 200 | 6.4         | 0.29                       | 4.8         | 14         | 16 |
|                            | 2.5      | 250 | 6.4         | 0.32                       | 5.4         | 16         | 18 |
|                            | 3.0      | 300 | 6.7         | 0.36                       | 6.0         | 16         | 18 |
|                            | 3.5      | 350 | 6.7         | 0.39                       | 6.4         | 17         | 20 |
|                            | 3.8      | 380 | 7.0         | 0.40                       | 6.7         | 16         | 19 |
| <b>2.0</b><br>■ Blue Haze  | 1.7      | 170 | 7.0         | 0.34                       | 5.6         | 14         | 16 |
|                            | 2.0      | 200 | 7.3         | 0.37                       | 6.2         | 14         | 16 |
|                            | 2.5      | 250 | 7.3         | 0.42                       | 7.1         | 16         | 18 |
|                            | 3.0      | 300 | 7.6         | 0.48                       | 8.0         | 17         | 19 |
|                            | 3.5      | 350 | 7.6         | 0.53                       | 8.8         | 18         | 21 |
|                            | 3.8      | 380 | 7.9         | 0.56                       | 9.3         | 18         | 20 |
| <b>2.5</b><br>■ Blue Haze  | 1.7      | 170 | 7.9         | 0.46                       | 7.6         | 15         | 17 |
|                            | 2.0      | 200 | 8.2         | 0.49                       | 8.1         | 14         | 17 |
|                            | 2.5      | 250 | 8.2         | 0.54                       | 9.0         | 16         | 18 |
|                            | 3.0      | 300 | 8.5         | 0.59                       | 9.8         | 16         | 19 |
|                            | 3.5      | 350 | 8.5         | 0.63                       | 10.5        | 17         | 20 |
|                            | 3.8      | 380 | 8.8         | 0.65                       | 10.9        | 17         | 19 |
| <b>3.0</b><br>■ Blue Haze  | 1.7      | 170 | 8.8         | 0.51                       | 8.5         | 13         | 15 |
|                            | 2.0      | 200 | 9.1         | 0.56                       | 9.3         | 13         | 15 |
|                            | 2.5      | 250 | 9.1         | 0.64                       | 10.6        | 15         | 18 |
|                            | 3.0      | 300 | 9.4         | 0.72                       | 12.0        | 16         | 19 |
|                            | 3.5      | 350 | 9.4         | 0.78                       | 13.1        | 18         | 20 |
|                            | 3.8      | 380 | 9.8         | 0.82                       | 13.7        | 17         | 20 |
| <b>4.0</b><br>■ Blue Haze  | 1.7      | 170 | 9.8         | 0.80                       | 13.3        | 17         | 19 |
|                            | 2.0      | 200 | 10.1        | 0.83                       | 13.8        | 16         | 19 |
|                            | 2.5      | 250 | 10.1        | 0.89                       | 14.8        | 18         | 20 |
|                            | 3.0      | 300 | 10.4        | 0.94                       | 15.7        | 17         | 20 |
|                            | 3.5      | 350 | 10.4        | 0.98                       | 16.3        | 18         | 21 |
|                            | 3.8      | 380 | 10.7        | 1.00                       | 16.7        | 18         | 20 |

#### Note:

All precipitation rates calculated for 180° operation.

For the precipitation rate for a 360° sprinkler, divide by 2.

| Models              | Standard   | Options     |
|---------------------|--|-------------|
| HF01-04=10cm pop-up | Adjustable arc,<br>8 standard nozzles<br>4 low angle nozzles | (blank)=nil |

#### Examples:

HF-01-04=10cm pop-up, adjustable arc



# HF02

04”、06”、12”

## Application

It is applied to turfgrass, shrubs, garden, etc.

## Features

- Models: 10cm, 15cm, 30cm
- Arc setting: 50°~360°
- Factory installed rubber cover
- Through-the-top arc adjustment
- Quick check arc mechanism
- Water lubricated gear-drive
- Nozzle choice: blue, grey
- Nozzle range: 1.5~8.0 blue, 2.0~4.5 low angle blue
- Warranty: 5 years

## Operating Specification

- Radius: 4.9~14.0m
- Flow: 0.07~3.23m³/hr; 1.2~53.8l/min
- Recommended working pressure: 1.7~4.5bar; 170~450kPa
- Operating working pressure: 1.4~7bar; 140~700kPa



# Operating Specification

- Inlet size: 3/4" female
- Precipitation rate: 10mm/hr approx
- Trajectory: Standard = 25° Low angle= 13°



**HF02-04**

Overall height: 21cm  
Exposed diameter: 4.5cm  
Inlet size: 3/4" female



**HF02-06**

Overall height: 25cm  
Exposed diameter: 4.5cm  
Inlet size: 3/4" female



**HF02-12**

Overall height: 44cm  
Exposed diameter: 4.5cm  
Inlet size: 3/4" female

| Models              | Standard            | Options     | Optional nozzles                       |
|---------------------|---------------------|-------------|--|
| HF02-04=10cm pop-up | Adjustable arc,     | (blank)=nil | 1.5-4.0=factory installed              |
| HF02-06=15cm pop-up | 8 standard nozzles  |             | nozzle number                          |
| HF02-12=30cm pop-up | 4 low angle nozzles |             | Blue 1.5-8.0<br>Blue low angle 2.0-4.5 |

**Examples:**

- HF-02-04=10cm pop-up, adjustable arc
- HF-02-06=15cm pop-up, adjustable arc
- HF-02-12=30cm pop-up, adjustable arc

| / Performance Data        |                            |              |          |            |            |            |            |   |
|---------------------------|----------------------------|--------------|----------|------------|------------|------------|------------|---|
| HF02 standard blue nozzle |                            |              |          |            |            |            |            |   |
| Nozzle                    | Pressure bar               | kPa          | Radius m | Flow m³/hr | Flow l/m   | Precipmm/h |            |   |
|                           |                            |              |          |            |            | ■          | ▲          |   |
| 1.5<br>■ Blue Haze        | 1.7                        | 170          | 8.8      | 0.27       | 4.5        | 7          | 8          |   |
|                           | 2.0                        | 200          | 9.1      | 0.29       | 4.8        | 7          | 8          |   |
|                           | 2.5                        | 250          | 9.4      | 0.32       | 5.4        | 7          | 8          |   |
|                           | 3.0                        | 300          | 9.8      | 0.35       | 5.9        | 7          | 9          |   |
|                           | 3.5                        | 350          | 9.8      | 0.38       | 6.4        | 8          | 9          |   |
|                           | 4.0                        | 400          | 9.8      | 0.41       | 6.8        | 9          | 10         |   |
| 2.0<br>■ Blue Haze        | 4.5                        | 450          | 9.4      | 0.43       | 7.8        | 10         | 11         |   |
|                           | 1.7                        | 170          | 10.1     | 0.32       | 5.4        | 6          | 7          |   |
|                           | 2.0                        | 200          | 10.1     | 0.35       | 5.8        | 7          | 8          |   |
|                           | 2.5                        | 250          | 10.1     | 0.39       | 6.5        | 8          | 9          |   |
|                           | 3.0                        | 300          | 10.4     | 0.43       | 7.2        | 8          | 9          |   |
|                           | 3.5                        | 350          | 10.4     | 0.47       | 7.8        | 9          | 10         |   |
| 2.5<br>■ Blue Haze        | 4.0                        | 400          | 10.4     | 0.50       | 8.3        | 9          | 11         |   |
|                           | 4.5                        | 450          | 10.4     | 0.53       | 8.8        | 10         | 11         |   |
|                           | 1.7                        | 170          | 10.1     | 0.39       | 6.6        | 8          | 9          |   |
|                           | 2.0                        | 200          | 10.4     | 0.43       | 7.1        | 8          | 9          |   |
|                           | 2.5                        | 250          | 10.7     | 0.48       | 8.0        | 8          | 10         |   |
|                           | 3.0                        | 300          | 10.7     | 0.54       | 8.9        | 9          | 11         |   |
| 3.0<br>■ Blue Haze        | 3.5                        | 350          | 10.7     | 0.58       | 9.7        | 10         | 12         |   |
|                           | 4.0                        | 400          | 10.7     | 0.62       | 10.4       | 11         | 13         |   |
|                           | 4.5                        | 450          | 10.7     | 0.66       | 11.1       | 12         | 13         |   |
|                           | 1.7                        | 170          | 10.7     | 0.50       | 8.4        | 9          | 10         |   |
|                           | 2.0                        | 200          | 10.7     | 0.54       | 9.1        | 10         | 11         |   |
|                           | 2.5                        | 250          | 11.0     | 0.61       | 10.2       | 10         | 12         |   |
| 4.0<br>■ Blue Haze        | 3.0                        | 300          | 11.6     | 0.68       | 11.4       | 10         | 12         |   |
|                           | 3.5                        | 350          | 11.9     | 0.74       | 12.3       | 10         | 12         |   |
|                           | 4.0                        | 400          | 11.9     | 0.79       | 13.2       | 11         | 13         |   |
|                           | 4.5                        | 450          | 11.9     | 0.84       | 14.0       | 12         | 14         |   |
|                           | 1.7                        | 170          | 11.3     | 0.68       | 11.3       | 11         | 12         |   |
|                           | 2.0                        | 200          | 11.6     | 0.73       | 12.2       | 11         | 13         |   |
| 5.0<br>■ Blue Haze        | 2.5                        | 250          | 11.9     | 0.81       | 13.6       | 12         | 13         |   |
|                           | 3.0                        | 300          | 12.2     | 0.90       | 15.0       | 12         | 14         |   |
|                           | 3.5                        | 350          | 12.2     | 0.97       | 16.2       | 13         | 15         |   |
|                           | 4.0                        | 400          | 12.5     | 1.04       | 17.3       | 13         | 15         |   |
|                           | 4.5                        | 450          | 12.5     | 1.10       | 18.3       | 14         | 16         |   |
|                           | 1.7                        | 170          | 11.3     | 0.84       | 14.0       | 13         | 15         |   |
| 6.0<br>■ Blue Haze        | 2.0                        | 200          | 11.6     | 0.91       | 15.2       | 14         | 16         |   |
|                           | 2.5                        | 250          | 11.9     | 1.02       | 17.1       | 15         | 17         |   |
|                           | 3.0                        | 300          | 12.8     | 1.14       | 19.0       | 14         | 16         |   |
|                           | 3.5                        | 350          | 12.8     | 1.24       | 20.6       | 15         | 17         |   |
|                           | 4.0                        | 400          | 12.8     | 1.32       | 22.1       | 16         | 19         |   |
|                           | 4.5                        | 450          | 12.8     | 1.41       | 23.4       | 17         | 20         |   |
| 8.0<br>■ Blue Haze        | 1.7                        | 170          | 11.6     | 1.01       | 16.8       | 15         | 17         |   |
|                           | 2.0                        | 200          | 11.9     | 1.09       | 18.2       | 15         | 18         |   |
|                           | 2.5                        | 250          | 12.2     | 1.22       | 20.4       | 16         | 19         |   |
|                           | 3.0                        | 300          | 13.1     | 1.36       | 22.7       | 16         | 18         |   |
|                           | 3.5                        | 350          | 13.1     | 1.47       | 24.5       | 17         | 20         |   |
|                           | 4.0                        | 400          | 13.4     | 1.57       | 26.2       | 18         | 20         |   |
| / Performance Data        | 4.5                        | 450          | 13.4     | 1.67       | 27.9       | 19         | 21         |   |
|                           | 1.7                        | 170          | 11.3     | 1.35       | 22.5       | 21         | 25         |   |
|                           | 2.0                        | 200          | 11.9     | 1.46       | 24.3       | 21         | 24         |   |
|                           | 2.5                        | 250          | 12.5     | 1.63       | 27.2       | 21         | 24         |   |
|                           | 3.0                        | 300          | 13.4     | 1.81       | 30.2       | 20         | 23         |   |
|                           | 3.5                        | 350          | 13.7     | 1.95       | 32.6       | 21         | 24         |   |
| / Performance Data        | 4.0                        | 400          | 14.0     | 2.09       | 34.8       | 21         | 25         |   |
|                           | 4.5                        | 450          | 14.0     | 2.22       | 36.9       | 23         | 26         |   |
|                           | / Performance Data         |              |          |            |            |            |            |   |
|                           | HF02 low angle blue nozzle |              |          |            |            |            |            |   |
|                           | Nozzle                     | Pressure bar | kPa      | Radius m   | Flow m³/hr | Flow l/m   | Precipmm/h |   |
|                           |                            |              |          |            |            |            | ■          | ▲ |
| 2.0<br>■ Blue Haze        | 1.7                        | 170          | 7.3      | 0.33       | 5.6        | 12         | 14         |   |
|                           | 2.0                        | 200          | 7.6      | 0.36       | 6.0        | 12         | 14         |   |
|                           | 2.5                        | 250          | 7.9      | 0.40       | 6.7        | 13         | 15         |   |
|                           | 3.0                        | 300          | 8.2      | 0.45       | 7.4        | 13         | 15         |   |
|                           | 3.5                        | 350          | 8.5      | 0.48       | 8.0        | 13         | 15         |   |
|                           | 4.0                        | 400          | 8.8      | 0.52       | 8.6        | 13         | 15         |   |
| 2.5<br>■ Blue Haze        | 4.5                        | 450          | 9.1      | 0.55       | 9.1        | 13         | 15         |   |
|                           | 1.7                        | 170          | 7.9      | 0.44       | 7.3        | 14         | 16         |   |
|                           | 2.0                        | 200          | 8.2      | 0.47       | 7.9        | 14         | 16         |   |
|                           | 2.5                        | 250          | 8.8      | 0.53       | 8.8        | 14         | 16         |   |
|                           | 3.0                        | 300          | 9.4      | 0.59       | 9.8        | 13         | 15         |   |
|                           | 3.5                        | 350          | 10.1     | 0.64       | 10.6       | 13         | 15         |   |
| 3.5<br>■ Blue Haze        | 4.0                        | 400          | 10.4     | 0.68       | 11.3       | 13         | 15         |   |
|                           | 4.5                        | 450          | 10.7     | 0.72       | 12.0       | 13         | 15         |   |
|                           | 1.7                        | 170          | 8.5      | 0.58       | 9.7        | 16         | 18         |   |
|                           | 2.0                        | 200          | 8.8      | 0.62       | 10.3       | 16         | 18         |   |
|                           | 2.5                        | 250          | 9.1      | 0.68       | 11.4       | 16         | 19         |   |
|                           | 3.0                        | 300          | 10.1     | 0.75       | 12.5       | 15         | 17         |   |
| 4.5<br>■ Blue Haze        | 3.5                        | 350          | 10.7     | 0.80       | 13.3       | 14         | 16         |   |
|                           | 4.0                        | 400          | 11.0     | 0.85       | 14.1       | 14         | 16         |   |
|                           | 4.5                        | 450          | 11.3     | 0.89       | 14.8       | 14         | 16         |   |
|                           | 1.7                        | 170          | 8.2      | 0.71       | 11.8       | 21         | 24         |   |
|                           | 2.0                        | 200          | 8.8      | 0.76       | 12.7       | 19         | 23         |   |
|                           | 2.5                        | 250          | 9.1      | 0.84       | 14.1       | 20         | 23         |   |
| / Performance Data        | 3.0                        | 300          | 10.1     | 0.93       | 15.5       | 18         | 21         |   |
|                           | 3.5                        | 350          | 10.7     | 1.00       | 16.6       | 18         | 20         |   |
|                           | 4.0                        | 400          | 11.0     | 1.06       | 17.6       | 18         | 20         |   |
|                           | 4.5                        | 450          | 11.3     | 1.12       | 18.6       | 18         | 20         |   |



# 电磁阀系列

## SOLENOID VALVE

The outer flow channel design and 3-way waterproof coil makes the corresponding speed of solenoid valve faster.

The outer flow channel of the solenoid is increased and the anti blocking ability is stronger.

The solenoid has low energy consumption and can realize long-distance control.

The solenoid has a built-in three-way flow channel base and can be equipped with a two position three-way control valve

The solenoid is equipped with a manual control knob, which has open, close, and automatic three modes.

Split structure design, built-in diaphragm, solenoid separated from overflow channel, long service life.



# Y100series Solenoid Valve

## 1.5 inch

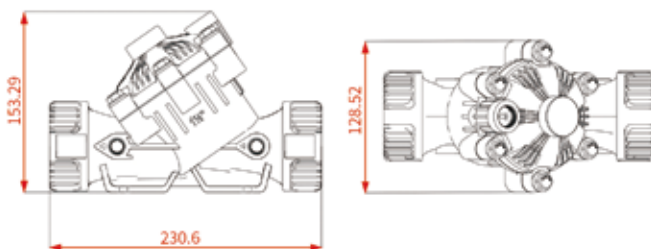
### Type

|            |                         |
|------------|-------------------------|
| Size       | 1-1/2-inch, DN40        |
| Inlet Size | Female Thread, NPT/BSPT |
| Material   | Nylon PA66              |

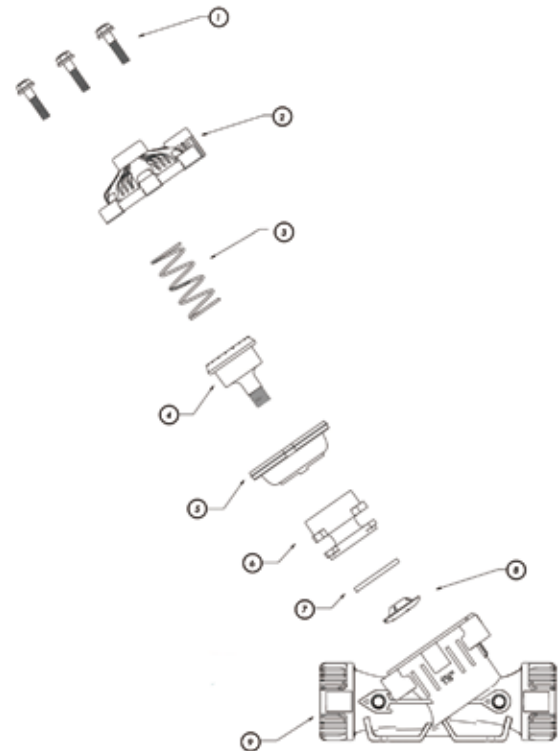
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 21    |
|           | gal/min(US)       | 92    |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



### Spare Parts

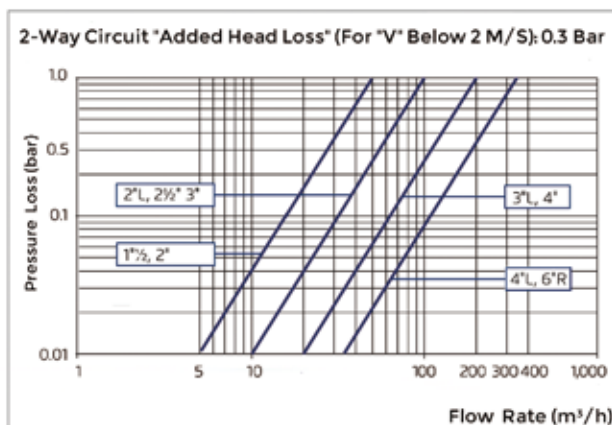


### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



| # | Accessories        | Material   |
|---|--------------------|------------|
| 1 | Bolt               | SUS304     |
| 2 | Bonnet             | Nylon PA66 |
| 3 | Spring             | SUS304     |
| 4 | Diaphragm Support  | Nylon PA66 |
| 5 | Diaphragm          | NR         |
| 6 | Diaphragm Retainer | Nylon PA66 |
| 7 | Plug Seal          | NR         |
| 8 | Support Nut        | Nylon PA66 |
| 9 | Valve Body         | Nylon PA66 |

# Y100series Solenoid Valve

## 2 inch

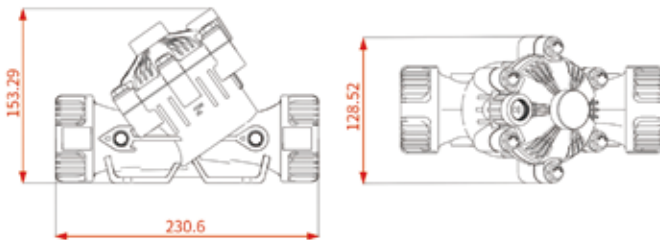
### Type

|            |                                  |
|------------|----------------------------------|
| Size       | 2-inch, DN50                     |
| Inlet Size | Female Thread, NPT/BSPT/ Flanged |
| Material   | Nylon PA66                       |

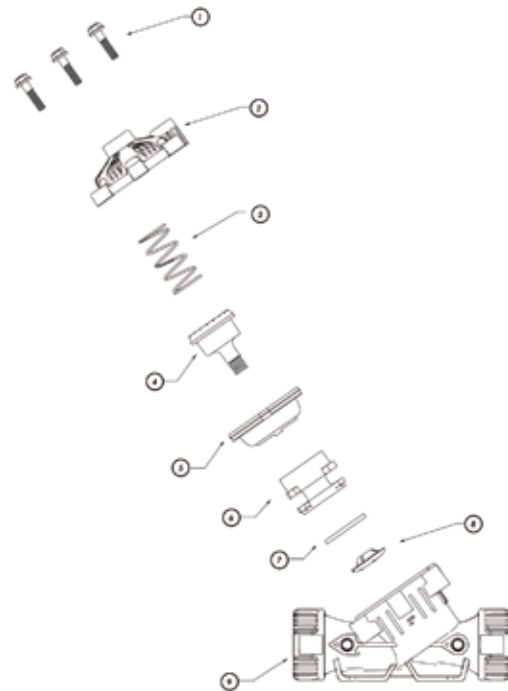
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 60    |
|           | gal/min(US)       | 264   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



### Spare Parts

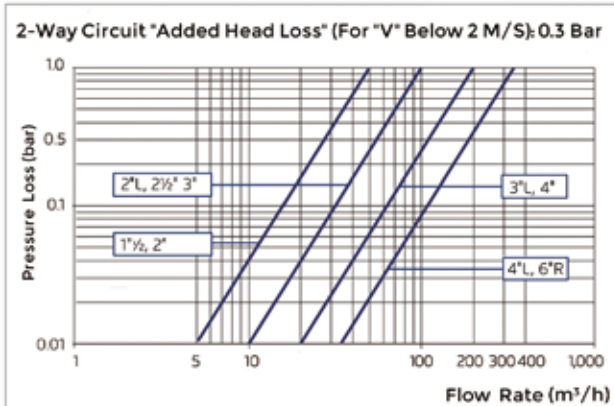


### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



| # | Accessories        | Material   |
|---|--------------------|------------|
| 1 | Bolt               | SUS304     |
| 2 | Bonnet             | Nylon PA66 |
| 3 | Spring             | SUS304     |
| 4 | Diaphragm Support  | Nylon PA66 |
| 5 | Diaphragm          | NR         |
| 6 | Diaphragm Retainer | Nylon PA66 |
| 7 | Plug Seal          | NR         |
| 8 | Support Nut        | Nylon PA66 |
| 9 | Valve Body         | Nylon PA66 |

# Y100series Solenoid Valve

## 2.5 inch

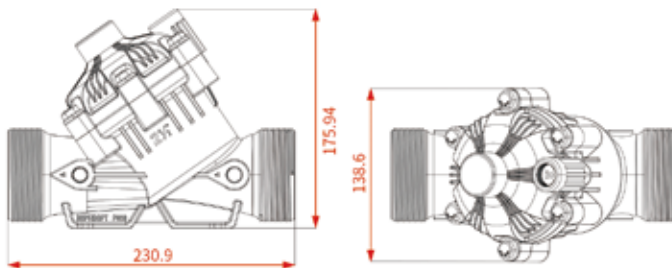
### Type

|            |                                  |
|------------|----------------------------------|
| Size       | 2.5-inch, DN65                   |
| Inlet Size | Female Thread, NPT/BSPT/ Flanged |
| Material   | Nylon PA66                       |

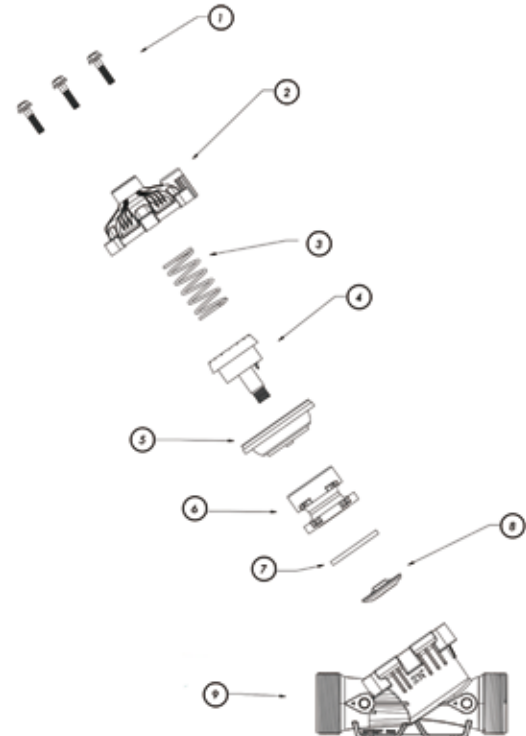
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 65    |
|           | gal/min(US)       | 286   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



### Spare Parts

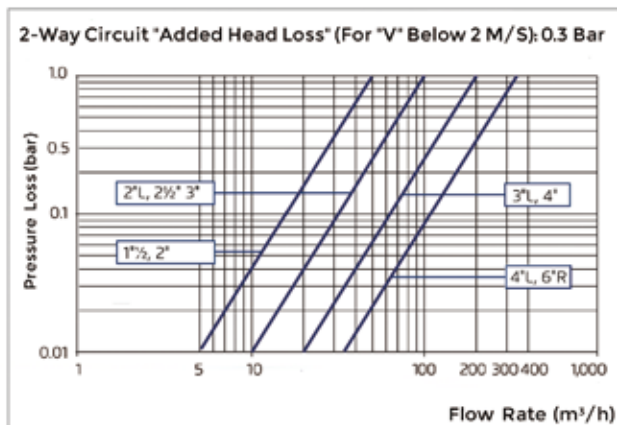


### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



| # | Accessories        | Material   |
|---|--------------------|------------|
| 1 | Bolt               | SUS304     |
| 2 | Bonnet             | Nylon PA66 |
| 3 | Spring             | SUS304     |
| 4 | Diaphragm Support  | Nylon PA66 |
| 5 | Diaphragm          | NR         |
| 6 | Diaphragm Retainer | Nylon PA66 |
| 7 | Plug Seal          | NR         |
| 8 | Threaded Cover     | Nylon PA66 |
| 9 | Valve Body         | Nylon PA66 |

# Y100series Solenoid Valve

## 3 inch

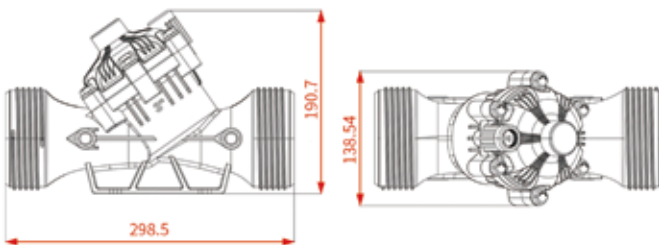
### Type

|            |                                  |
|------------|----------------------------------|
| Size       | 3-inch, DN80                     |
| Inlet Size | Female Thread, NPT/BSPT/ Flanged |
| Material   | Nylon PA66                       |

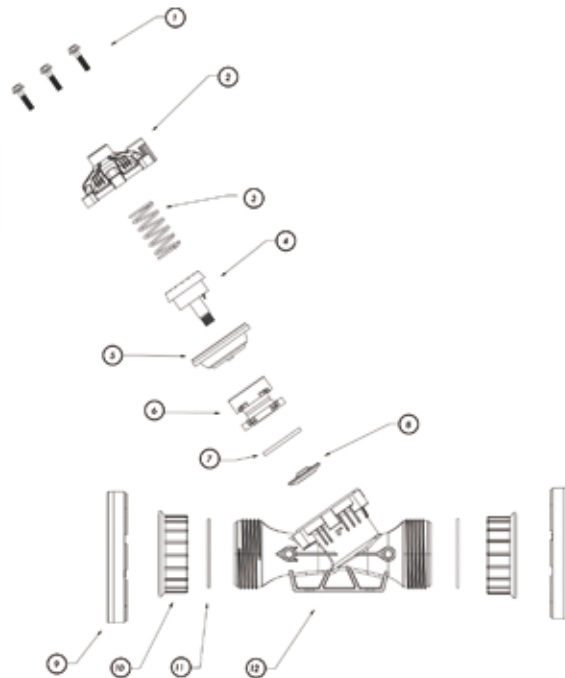
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 70    |
|           | gal/min(US)       | 308   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



### Spare Parts

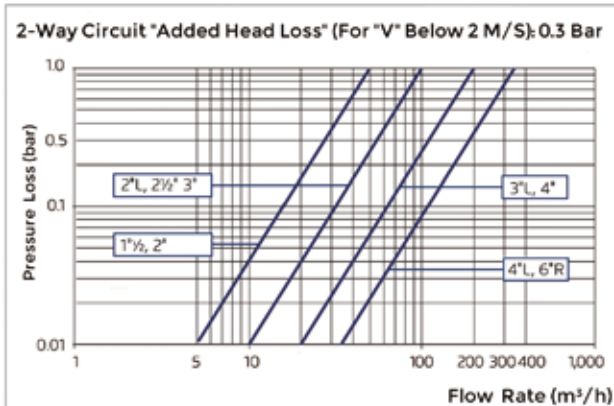


### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



| #  | Accessories        | Material   |
|----|--------------------|------------|
| 1  | Bolt               | SUS304     |
| 2  | Bonnet             | Nylon PA66 |
| 3  | Spring             | SUS304     |
| 4  | Diaphragm Support  | Nylon PA66 |
| 5  | Diaphragm          | NR         |
| 6  | Diaphragm Retainer | Nylon PA66 |
| 7  | Plug Seal          | NR         |
| 8  | Threaded Cover     | Nylon PA66 |
| 9  | Flange             | Nylon PA66 |
| 10 | Flange Adaptor     | Nylon PA66 |
| 11 | O Ring-Flange      | Nylon PA66 |
| 12 | Valve Body         | Nylon PA66 |

# Y100series Solenoid Valve

## 3.5 inch

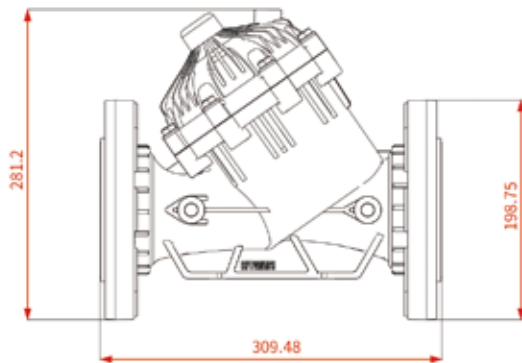
### Type

|            |                                  |
|------------|----------------------------------|
| Size       | 3-1/2-inch, DN80                 |
| Inlet Size | Female Thread, NPT/BSPT/ Flanged |
| Material   | Nylon PA66                       |

### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 100   |
|           | gal/min(US)       | 440   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)

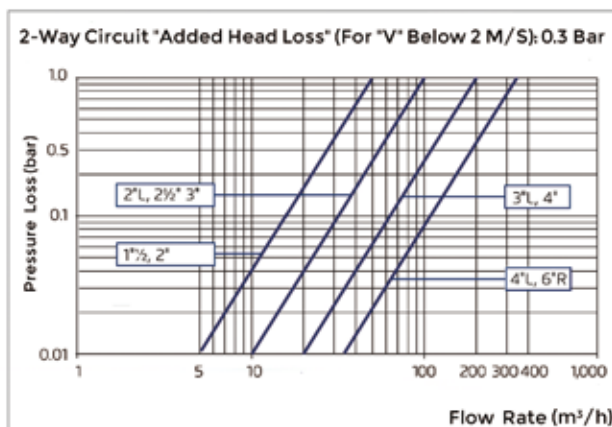


### Typical Applications

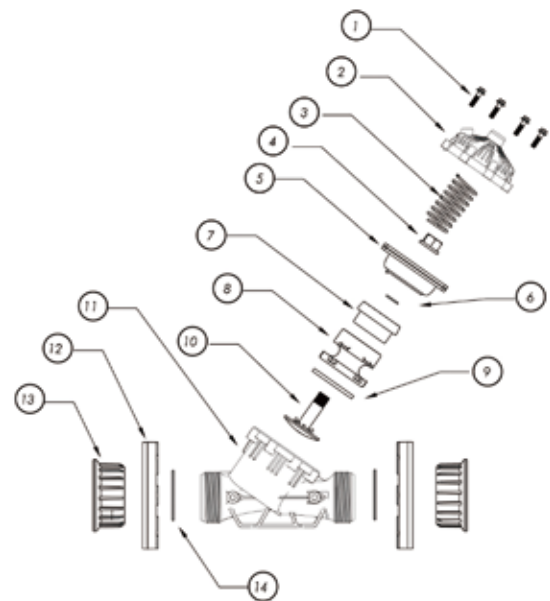
- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



### Spare Parts



| #  | Accessories        | Material   |
|----|--------------------|------------|
| 1  | Bolt               | SUS304     |
| 2  | Bonnet             | Nylon PA66 |
| 3  | Spring             | SUS304     |
| 4  | Retainer Nut       | Nylon PA66 |
| 5  | Diaphragm          | NR         |
| 6  | O Ring-Diaphragm   | NBR        |
| 7  | Diaphragm Assembly | Nylon PA66 |
| 8  | Diaphragm Retainer | Nylon PA66 |
| 9  | Plug Seal          | NR         |
| 10 | Diaphragm Support  | Nylon PA66 |
| 11 | Valve Body         | Nylon PA66 |
| 12 | Flange             | Nylon PA66 |
| 13 | Flange Adaptor     | Nylon PA66 |
| 14 | O Ring-Flange      | NBR        |

# Y100series Solenoid Valve

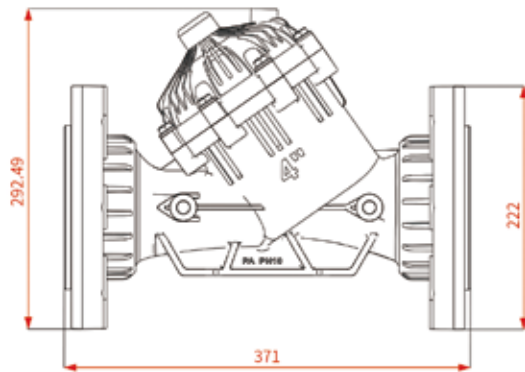
## 4 inch

|            |               |
|------------|---------------|
| Size       | 4-inch, DN100 |
| Inlet Size | Flanged       |
| Material   | Nylon PA66    |

### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 100   |
|           | gal/min(US)       | 440   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)

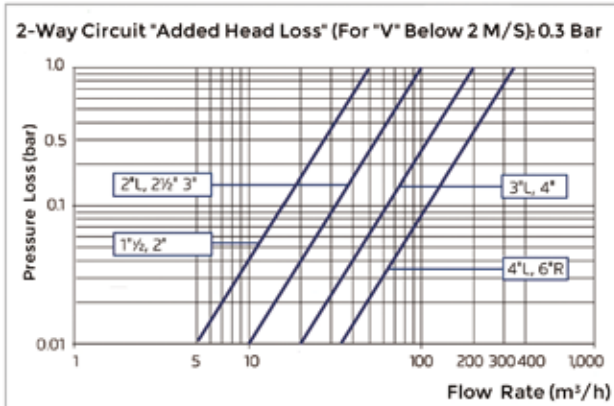


### Typical Applications

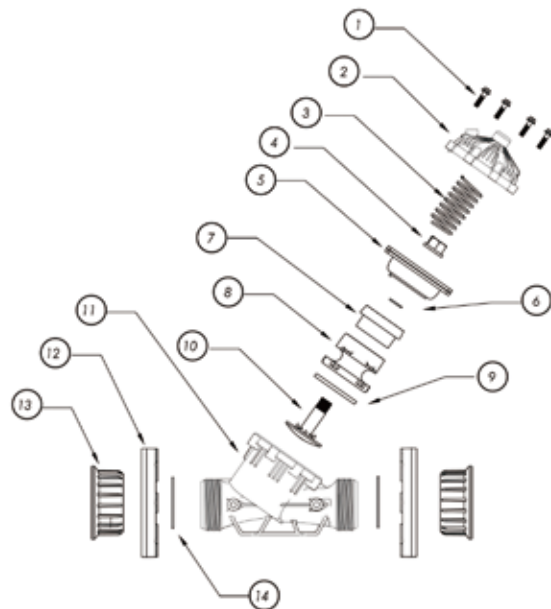
- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



### Spare Parts



| #  | Accessories        | Material   |
|----|--------------------|------------|
| 1  | Bolt               | SUS304     |
| 2  | Bonnet             | Nylon PA66 |
| 3  | Spring             | SUS304     |
| 4  | Retainer Nut       | Nylon PA66 |
| 5  | Diaphragm          | NR         |
| 6  | O Ring-Diaphragm   | NBR        |
| 7  | Diaphragm Assembly | Nylon PA66 |
| 8  | Diaphragm Retainer | Nylon PA66 |
| 9  | Plug Seal          | NR         |
| 10 | Diaphragm Support  | Nylon PA66 |
| 11 | Valve Body         | Nylon PA66 |
| 12 | Flange             | Nylon PA66 |
| 13 | Flange Adaptor     | Nylon PA66 |
| 14 | O Ring-Flange      | NBR        |

# Y100 series Solenoid Valve

## 5 inch

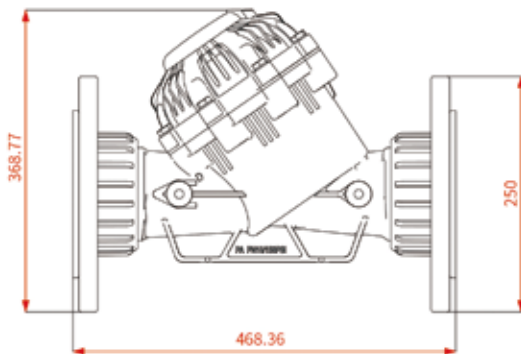
### Type

|            |               |
|------------|---------------|
| Size       | 5-inch, DN125 |
| Inlet Size | Flanged       |
| Material   | Nylon PA66    |

### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 125   |
|           | gal/min(US)       | 550   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)

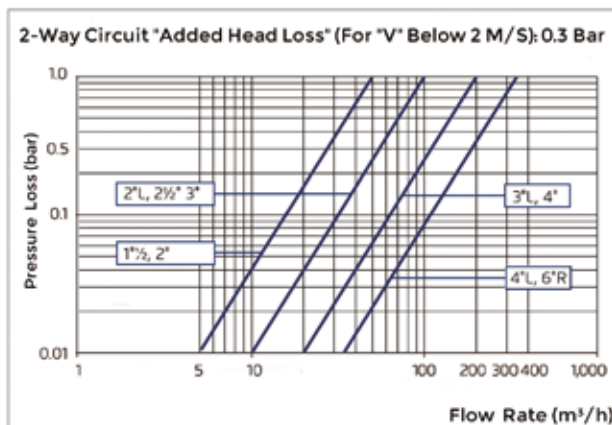


### Typical Applications

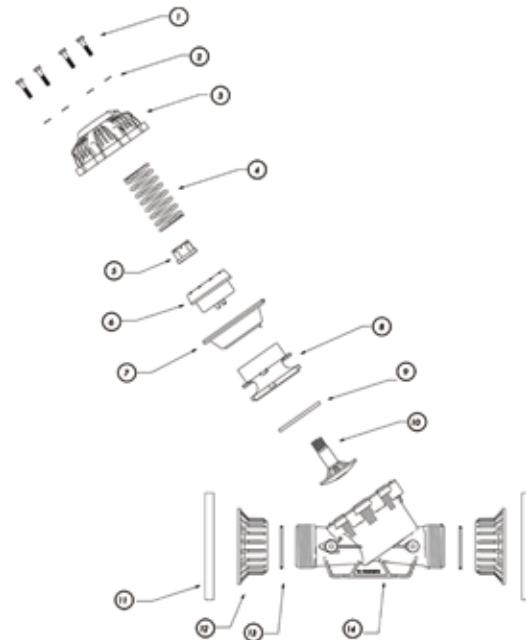
- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



### Spare Parts



| #  | Accessories        | Material                          |
|----|--------------------|-----------------------------------|
| 1  | Bolt               | SUS316                            |
| 2  | Bolt Washers       | SUS316                            |
| 3  | Bonnet             | Nylon PA66                        |
| 4  | Spring             | SUS316                            |
| 5  | Retainer Nut       | Nylon PA66                        |
| 6  | Diaphragm Assembly | Nylon PA66                        |
| 7  | Diaphragm          | NR                                |
| 8  | Diaphragm Retainer | Nylon PA66                        |
| 9  | Plug Seal          | NR                                |
| 10 | Diaphragm Support  | Nylon PA66                        |
| 11 | Flange             | Carbon Steel with Plastic Coating |
| 12 | Flange Adaptor     | Nylon PA66                        |
| 13 | O Ring-Flange      | NBR                               |
| 14 | Valve Body         | Nylon PA66                        |



# Y100series Solenoid Valve

## 6 inch

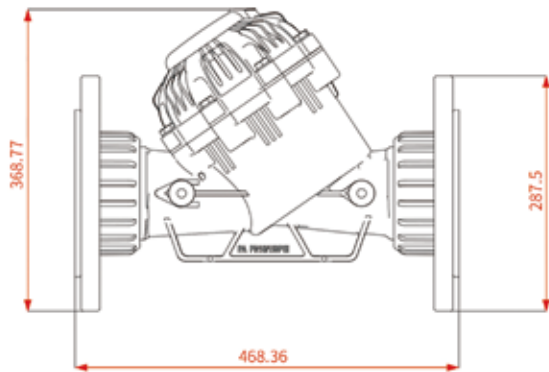
### Type

|            |               |
|------------|---------------|
| Size       | 6-inch, DN150 |
| Inlet Size | Flanged       |
| Material   | Nylon PA66    |

### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 210   |
|           | gal/min(US)       | 924   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)

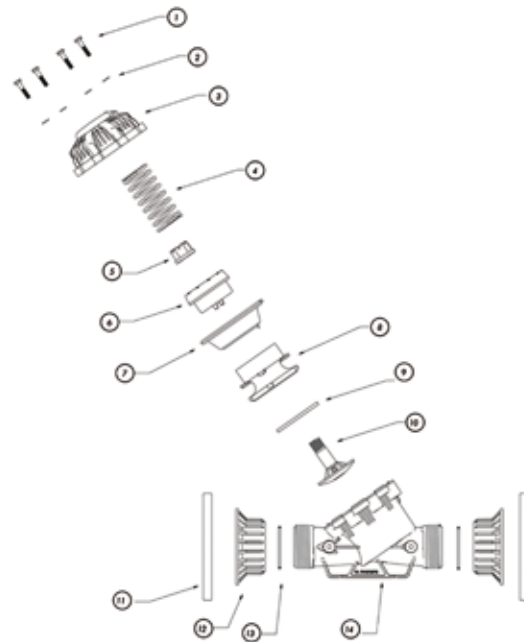
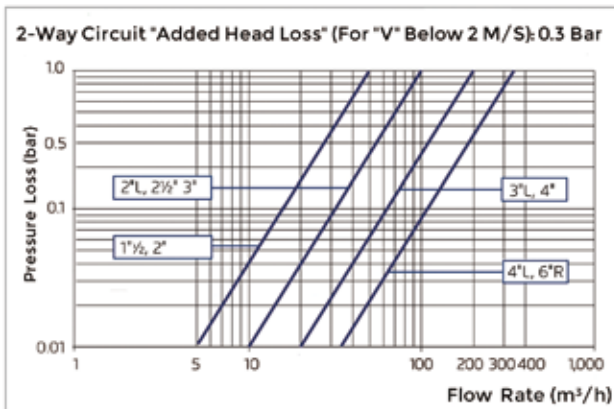


### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss

#### Flow Chart



| #  | Accessories        | Material                          |
|----|--------------------|-----------------------------------|
| 1  | Bolt               | SUS316                            |
| 2  | Bolt Washers       | SUS316                            |
| 3  | Bonnet             | Nylon PA66                        |
| 4  | Spring             | SUS304                            |
| 5  | Retainer Nut       | Nylon PA66                        |
| 6  | Diaphragm Assembly | Nylon PA66                        |
| 7  | Diaphragm          | NR                                |
| 8  | Diaphragm Retainer | Nylon PA66                        |
| 9  | Plug Seal          | NR                                |
| 10 | Diaphragm Support  | Nylon PA66                        |
| 11 | Flange             | Carbon Steel with Plastic Coating |
| 12 | Flange Adaptor     | Nylon PA66                        |
| 13 | O Ring-Flange      | NBR                               |
| 14 | Valve Body         | Nylon PA66                        |

# T200series Solenoid Valve

## 1/2 inch

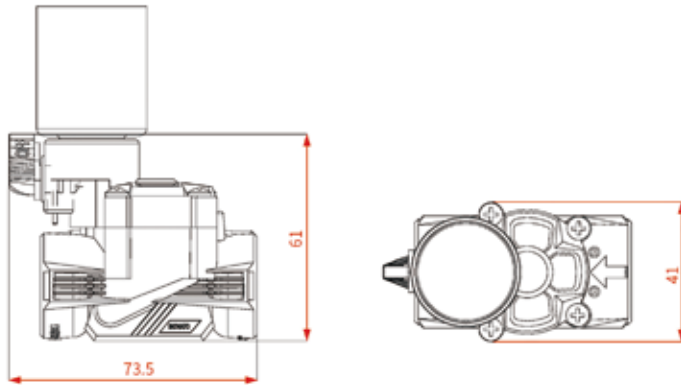
### Type

|            |                         |
|------------|-------------------------|
| Size       | 1/2-inch, DN15          |
| Inlet Size | Female Thread, NPT/BSPT |
| Material   | Nylon PA66              |

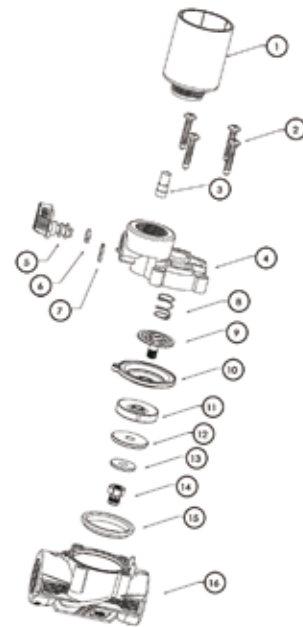
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 2.8   |
|           | gal/min(US)       | 12.57 |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



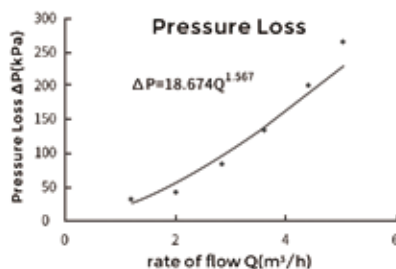
### Spare Parts



### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss



| Pressure Loss | rate of flow (m <sup>3</sup> /h) | Pressure Loss kPa |
|---------------|----------------------------------|-------------------|
|               |                                  | 1.20              |
|               | 2.01                             | 41                |
|               | 2.85                             | 83                |
|               | 3.60                             | 136               |
|               | 4.39                             | 205               |
|               | 5.01                             | 270               |

| #  | Accessories             | Material   |
|----|-------------------------|------------|
| 1  | Solenoid Actuator       |            |
| 2  | Screw                   | SUS304     |
| 3  | Bonnet Filter Pin       | POM        |
| 4  | Bonnet                  | Nylon PA66 |
| 5  | Bonnet Switch           | POM        |
| 6  | O Ring- Bonnet          | NBR        |
| 7  | Bonnet Assembly Pin     | SUS304     |
| 8  | Spring                  | SUS304     |
| 9  | Diaphragm Support       | Nylon PA66 |
| 10 | Diaphragm               | NR         |
| 11 | Diaphragm Retainer      | Nylon PA66 |
| 12 | Plug Seal               | NR         |
| 13 | Plug Seal Retainer      | Nylon PA66 |
| 14 | Support Nut             | Nylon PA66 |
| 15 | Valve Body Inside Liner | Nylon PA66 |
| 16 | Valve Body              | Nylon PA66 |

# T200series Solenoid Valve

## 3/4 inch

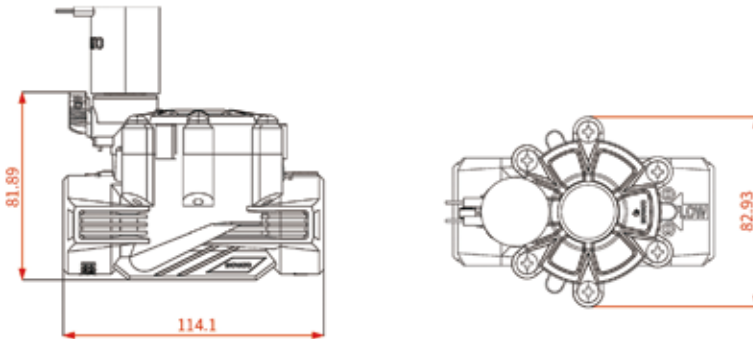
### Type

|            |   |
|------------|---|
| Size       | 3/4"-inch, DN20                         |
| Inlet Size | Female Thread, NPT/BSPT/Quick Connector |
| Material   | Nylon PA66                              |

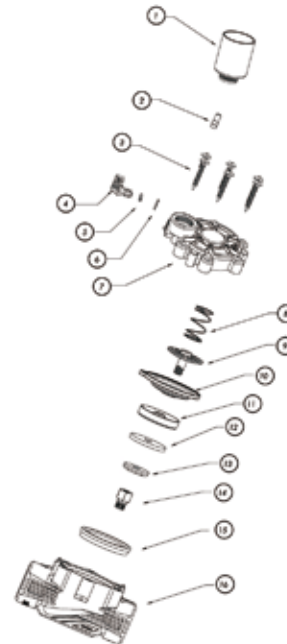
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 8.5   |
|           | gal/min(US)       | 38.15 |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



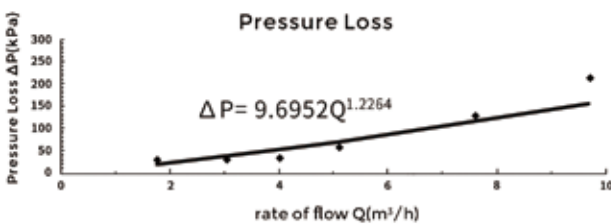
### Spare Parts



### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss



|               | rate of flow (m <sup>3</sup> /h) | Pressure Loss kPa |
|---------------|----------------------------------|-------------------|
| Pressure Loss | 1.77                             | 30                |
|               | 3.04                             | 31                |
|               | 4.01                             | 34                |
|               | 5.12                             | 59                |
|               | 7.62                             | 130               |
|               | 9.70                             | 215               |

| #  | Accessories             | Material   |
|----|-------------------------|------------|
| 1  | Solenoid Actuator       |            |
| 2  | Bonnet Filter Pin       | POM        |
| 3  | Screw                   | SUS304     |
| 4  | Bonnet Switch           | POM        |
| 5  | O Ring- Bonnet          | NBR        |
| 6  | Bonnet Assembly Pin     | SUS304     |
| 7  | Bonnet                  | Nylon PA66 |
| 8  | Spring                  | SUS304     |
| 9  | Diaphragm Support       | Nylon PA66 |
| 10 | Diaphragm               | NR         |
| 11 | Diaphragm Retainer      | Nylon PA66 |
| 12 | Plug Seal               | NR         |
| 13 | Plug Seal Retainer      | Nylon PA66 |
| 14 | Support Nut             | Nylon PA66 |
| 15 | Valve Body Inside Liner | Nylon PA66 |
| 16 | Valve Body              | Nylon PA66 |

# T200series Solenoid Valve

## 1 inch

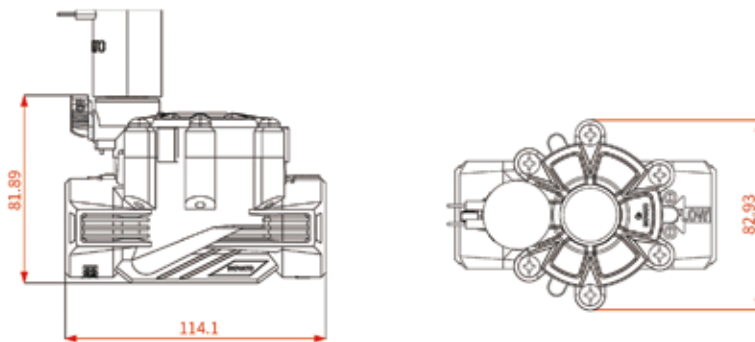
### Type

|            |   |
|------------|---|
| Size       | 1-inch, DN25                            |
| Inlet Size | Female Thread, NPT/BSPT/Quick Connector |
| Material   | Nylon PA66                              |

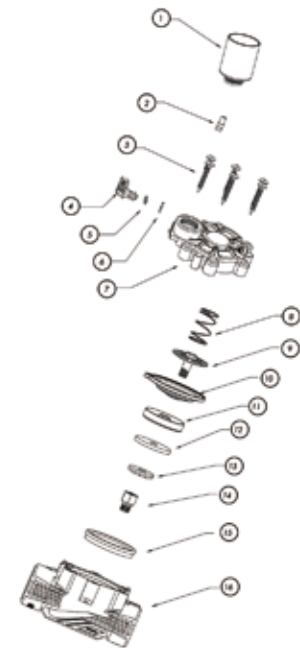
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 8.8   |
|           | gal/min(US)       | 39.5  |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



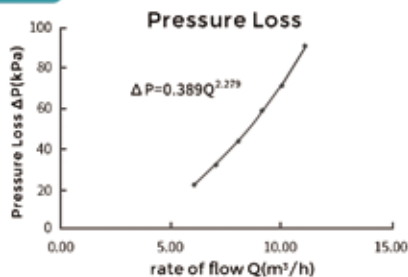
### Spare Parts



### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss



| Pressure Loss | rate of flow (m <sup>3</sup> /h) | Pressure Loss kPa |
|---------------|----------------------------------|-------------------|
|               |                                  | 6.00              |
|               | 7.03                             | 33                |
|               | 8.00                             | 45                |
|               | 9.02                             | 60                |
|               | 10.00                            | 72                |
|               | 10.98                            | 92                |

| #  | Accessories             | Material   |
|----|-------------------------|------------|
| 1  | Solenoid Actuator       |            |
| 2  | Bonnet Filter Pin       | POM        |
| 3  | Screw                   | SUS304     |
| 4  | Bonnet Switch           | POM        |
| 5  | O Ring- Bonnet          | NBR        |
| 6  | Bonnet Assembly Pin     | SUS304     |
| 7  | Bonnet                  | Nylon PA66 |
| 8  | Spring                  | SUS304     |
| 9  | Diaphragm Support       | Nylon PA66 |
| 10 | Diaphragm               | NR         |
| 11 | Diaphragm Retainer      | Nylon PA66 |
| 12 | Plug Seal               | NR         |
| 13 | Plug Seal Retainer      | Nylon PA66 |
| 14 | Support Nut             | Nylon PA66 |
| 15 | Valve Body Inside Liner | Nylon PA66 |
| 16 | Valve Body              | Nylon PA66 |

# T200series Solenoid Valve

## 1.5 inch

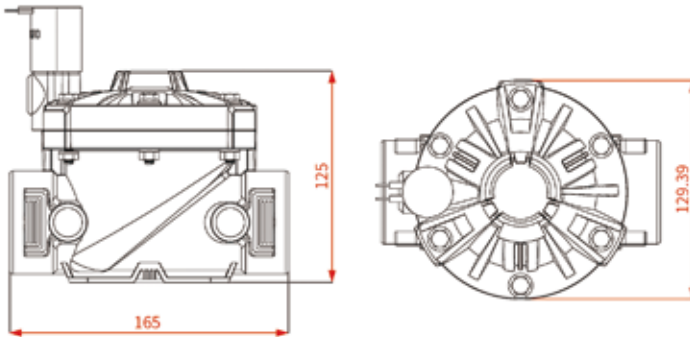
### Type

|            |                                  |
|------------|----------------------------------|
| Size       | 1-1/2-inch, DN40                 |
| Inlet Size | Female Thread, NPT/BSPT/ Flanged |
| Material   | Nylon PA66                       |

### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 20    |
|           | gal/min(US)       | 89.76 |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



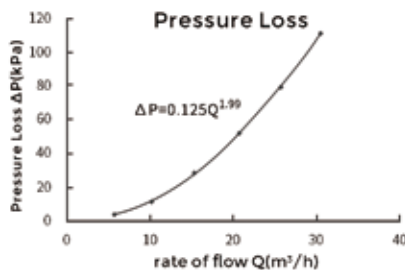
### Spare Parts



### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss



|               | rate of flow (m <sup>3</sup> /h) | Pressure Loss kPa |
|---------------|----------------------------------|-------------------|
| Pressure Loss | 5.66                             | 4                 |
|               | 10.10                            | 12                |
|               | 15.32                            | 29                |
|               | 20.68                            | 53                |
|               | 25.66                            | 79                |
|               | 30.49                            | 112               |

| #  | Accessories             | Material   |
|----|-------------------------|------------|
| 1  | Solenoid Actuator       |            |
| 2  | Bolt                    | SUS304     |
| 3  | Bonnet Filter Pin       | POM        |
| 4  | Bonnet                  | Nylon PA66 |
| 5  | Bonnet Switch           | POM        |
| 6  | O Ring- Bonnet          | NBR        |
| 7  | Bonnet Assembly Pin     | SUS304     |
| 8  | Spring                  | SUS304     |
| 9  | Diaphragm Support       | Nylon PA66 |
| 10 | Diaphragm               | NR         |
| 11 | Diaphragm Retainer      | Nylon PA66 |
| 12 | Plug Seal               | NR         |
| 13 | Plug Seal Retainer      | Nylon PA66 |
| 14 | Support Nut             | Nylon PA66 |
| 15 | Valve Body Inside Liner | Nylon PA66 |
| 16 | Valve Body              | Nylon PA66 |
| 17 | Nuts Washers            | SUS304     |
| 18 | Nuts                    | Copper     |

# T200series Solenoid Valve

## 2 inch

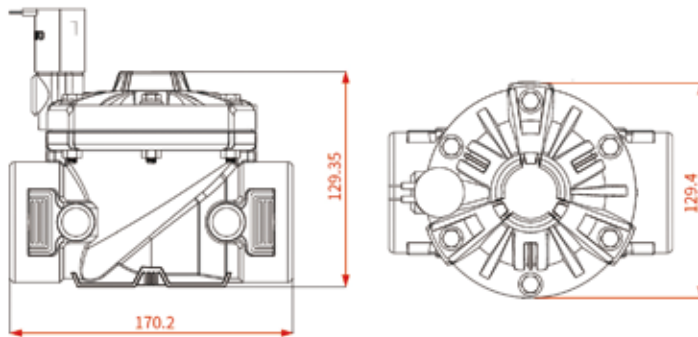
### Type

|            |                                 |
|------------|---------------------------------|
| Size       | 2-inch, DN50                    |
| Inlet Size | Female Thread, NPT/BSPT/Flanged |
| Material   | Nylon PA66                      |

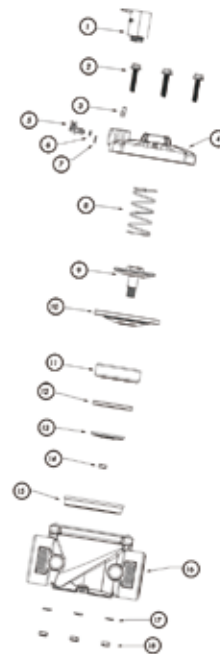
### Optimal Performance

|           |                   |       |
|-----------|-------------------|-------|
| Max. Flow | m <sup>3</sup> /h | 33    |
|           | gal/min(US)       | 148   |
| Max. Pre  | MPa               | 1.0   |
|           | PSI               | 145   |
| Min. Pre  | MPa               | 0.069 |
|           | PSI               | 10    |
| Max. Temp | °C                | 60    |
|           | °F                | 140   |

### Technical Specifications (mm)



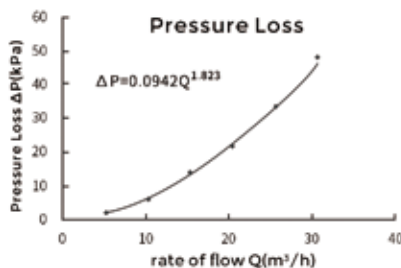
### Spare Parts



### Typical Applications

- Irrigation System
- Garden Irrigation
- Agriculture
- Landscape Irrigation
- Greenhouses Irrigation
- Sprinkling Irrigation System
- Water Filtration System
- Outdoor And Public Sewage Systems
- Underground Irrigation System

### Head Loss



|               | rate of flow (m <sup>3</sup> /h) | Pressure Loss kPa |
|---------------|----------------------------------|-------------------|
| Pressure Loss | 5.22                             | 2                 |
|               | 10.24                            | 6                 |
|               | 15.12                            | 14                |
|               | 20.29                            | 22                |
|               | 25.37                            | 34                |
|               | 30.29                            | 49                |

| #  | Accessories             | Material   |
|----|-------------------------|------------|
| 1  | Solenoid Actuator       |            |
| 2  | Bolt                    | SUS304     |
| 3  | Bonnet Filter Pin       | POM        |
| 4  | Bonnet                  | Nylon PA66 |
| 5  | Bonnet Switch           | POM        |
| 6  | O Ring- Bonnet          | NBR        |
| 7  | Bonnet Assembly Pin     | SUS304     |
| 8  | Spring                  | SUS304     |
| 9  | Diaphragm Support       | Nylon PA66 |
| 10 | Diaphragm               | NR         |
| 11 | Diaphragm Retainer      | Nylon PA66 |
| 12 | Plug Seal               | NR         |
| 13 | Plug Seal Retainer      | Nylon PA66 |
| 14 | Support Nut             | Nylon PA66 |
| 15 | Valve Body Inside Liner | Nylon PA66 |
| 16 | Valve Body              | Nylon PA66 |
| 17 | Nuts Washers            | SUS304     |
| 18 | Nuts                    | Copper     |

# Solenoid Valve Pilot Valve

## Pressure Regulating Pilot Valve

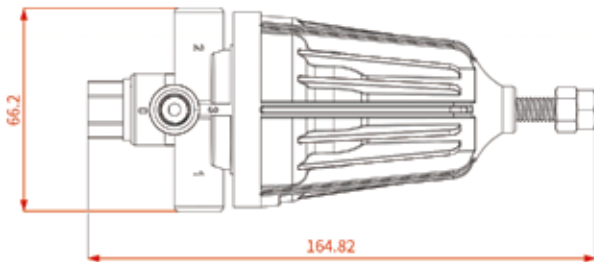
### Functions

The direct multifunctional tee pilot valve is driven by a pressure sensitive diaphragm, keeps the balance between Hydraulic pressure and the setting spring force.

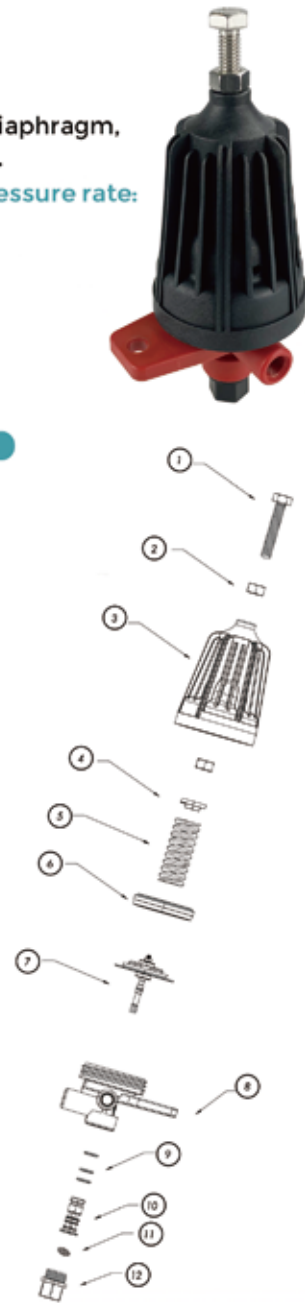
**It will guide the flow between different ports when detected different pressure rate:**

- ★ If the detecting pressure was higher than the setting pressure, the valve would guide the flow from no.0 port to no.3 port.
- ★ If the detecting pressure was equal to the setting pressure, the valve would obstructed all the way.
- ★ If the detecting pressure was lower than the setting pressure, the valve would guide the flow from no.3 port to no.2 port.
- ★ The related pressure is monitored by no.1 port continuously.

### Technical Specifications (mm)



### Spare Parts



### Typical Application

- Pressure reducing valve (tee control loop), the valve connecting port caliber from 1-1/2-inches to 6-inches.
- Pressure sustaining valve (tee control loop), the valve connecting port caliber from 1-1/2-inches to 6-inches.
- Adjustable tee hydromantic interrupter (normally on/off).
- Automatically adjustable controller switch, the valve connecting port caliber from 1-1/2-inches to 4-inches.

### Technical Data

|                             |                                |                |
|-----------------------------|--------------------------------|----------------|
| Recommended Pressure Range  | 10MPa                          | 145PSI         |
| Temperature Rating          | water temperature reaches 50°C | 122°F          |
| <b>Flow</b>                 |                                |                |
| From No.0 Port to No.3 Port | kv                             | Cv             |
|                             | 0.13m <sup>3</sup> /h@1MPaΔP   | 0.15GPM@1psiΔP |
| From No.3 Port to No.2 Port | kv                             | Cv             |
|                             | 0.08m <sup>3</sup> /h@1MPaΔP   | 0.09GPM@1psiΔP |
| Size                        | 1/8-inch, Female Thread, NPT   |                |

### Operating Specifications/ Adjustment Range

| Spring | Pressure  |       |
|--------|-----------|-------|
|        | MPa       | PSI   |
| Normal | 0.08~0.65 | 11~95 |
| White  | 0.05~0.30 | 7~40  |



### Connecting Port

|      |  |
|------|--|
| No.0 | The port connects the inlet water inlet of pressure reducing valve or the exhaust vent of pressure sustaining valve. |
| No.3 | The port always connects the valve controller between diaphragm and bonnet.  |
| No.2 | The port connects the exhaust vent of pressure reducing valve or the inlet water inlet of pressure sustaining valve. |
| No.1 | The port always connects the outlet water outlet for pressure measurement.   |

| #  | Accessories            | Material   |
|----|------------------------|------------|
| 1  | Adjustment Screw       | SUS304     |
| 2  | Nuts                   | SUS304     |
| 3  | Bonnet-Pilot Valve     | Nylon PA66 |
| 4  | Spring Seat            | Nylon PA66 |
| 5  | Spring                 | SUS304     |
| 6  | Diaphragm Lower Platen | Nylon PA66 |
| 7  | Internal Components    |            |
| 8  | Valve Seat             | Nylon PA66 |
| 9  | O Ring-Water Separator | NBR        |
| 10 | Seat-Water Separator   | POM        |
| 11 | O Ring-Nuts            | NBR        |
| 12 | Nuts-Valve Seat        | Nylon PA66 |

# SOLENOID VALVE ACCESSORIES

## ACCESSORIES

|   | Product number | Product introduction      |  |
|---|----------------|---------------------------|--|
|    | Y-FJ-01-18     | Coupling,1/8",BSPT        |  |
|    | Y-FJ-02-18     | Elbow,1/8",BSPT           |  |
|    | Y-FJ-02-14     | Elbow,1/4",NPT            |  |
|    | Y-FJ-03-14     | Plug,1/4",NPT             |  |
|   | Y-FJ-04-18     | Reducing tee,1/8",BSPT    |  |
|  | Y-FJ-05-18     | Cap,1/8",BSPT             |  |
|  | Y-FJ-06-18     | Copper cross              |  |
|  | Y-FJ-06-14     | Copper cross              |  |
|  | Y-FJ-07-14     | Pressure tapping,1/4",NPT |  |
|  | Y-FJ-08        | Tape                      |  |
|  | Y-FJ-09-L59    | Strainer,1/4",NPT,L59     |  |



# SOLENOID VALVE ACCESSORIES

## ACCESSORIES

|   | Product number | Product introduction        |  |
|---|----------------|-----------------------------|--|
|    | Y-FJ-09-L41    | Strainer,1/4",NPT,L41       |  |
|    | Y-FJ-10-DN80   | Flange, 3"                  |  |
|    | Y-FJ-10-DN100  | Flange, 4"                  |  |
|    | Y-FJ-10-DN125  | Flange, 5"                  |  |
|   | Y-FJ-10-DN150  | Flange, 6"                  |  |
|  | Y-FJ-11        | Pressure Reduce Pilot Valve |  |
|  | Y-FJ-12        | Clamp connector,3"          |  |
|  | Y-FJ-12-02     | Clamp connector,4"          |  |
|  | Y-FJ-13        | PA,5*8                      |  |
|  | Y-FJ-14        | Pressure gauge              |  |
|  | Y-FJ-15        | Pressure gauge probe        |  |

# Solenoid Actuator

The solenoid actuator is the key part of valve controller and the important device to connects the valve and electronic control equipment. The solnoid actuator is compatible with all major controller, can achieve a variety of functions. The standard solenoid actuator is produced by INOVATO owned solenoid actuator factory.



## Feature:

- Normally open or closed position
- Reducing tee equip manual reset: turn on, off and auto
- Constant Voltage: 12VDC, 24VDC, 24VAC
- Pulse Voltage: 6-20V, 9-40V
- Protection Class: IP-68

## 2W electrical parameter & max cable length:

| Solenoid valve type | Cable color | Watt            | Amp           |                 | Coil resistance |
|---------------------|-------------|-----------------|---------------|-----------------|-----------------|
|                     |             |                 | Surge current | Holding current |                 |
| 2W-24VAC            | red/red     | 1.7             | 0.25          | 0.125           | 37.5            |
| 2W-24VDC            | black/black | 3.6             | 0.18          | 0.18            | 156             |
| 2W-12VDC            | blue/blue   | 4.0             | 0.33          | 0.33            | 36              |
| 2W-9VDC             | red/blue    | 4.3             | 0.33          | 0.33            | 36              |
| Solenoid valve type | Cable color | Coil inductance | Pulse width   |                 | Coil resistance |
| 2W-9-24VDC Pulse    | red/blac    | 12mH            | 20-500mSec    |                 | 6               |

## 3W electrical parameter & max cable length:

| Solenoid valve type | Cable color | Watt            | Amp           |                 | Coil resistance |
|---------------------|-------------|-----------------|---------------|-----------------|-----------------|
|                     |             |                 | Surge current | Holding current |                 |
| 3W-24VAC            | red/red     | 2.2             | 0.13          | 0.13            | 37.5            |
| 3W-24VDC            | black/black | 4.3             | 0.12          | 0.12            | 137             |
| 3W-12VDC            | blue/blue   | 4.3             | 0.28          | 0.28            | 34              |
| 3W-9VDC             | red/blue    | 4.3             | 0.47          | 0.47            | 19              |
| Solenoid valve type | Cable color | Coil inductance | Pulse width   |                 | Coil resistance |
| 3W-9-24VDC Pulse    | red/black   | 12mH            | 20-500mSec    |                 | 6               |

## 3W coil 3W-24VAC/24VDC

|                        |                  |
|------------------------|------------------|
| Product Identification | 8DS              |
| Port Thread            | 1/8" BSPT        |
| Pressure               | 0.5-10 Bar       |
| Material               | Nylon reinforced |
| Sealed Material        | NBR              |
| Fluid TEMP             | ≤60°C            |
| Voltage Range          | 24VAC/24VDC      |
| In Rush Current        | 90mA             |
| Holding Current        | 75mA             |

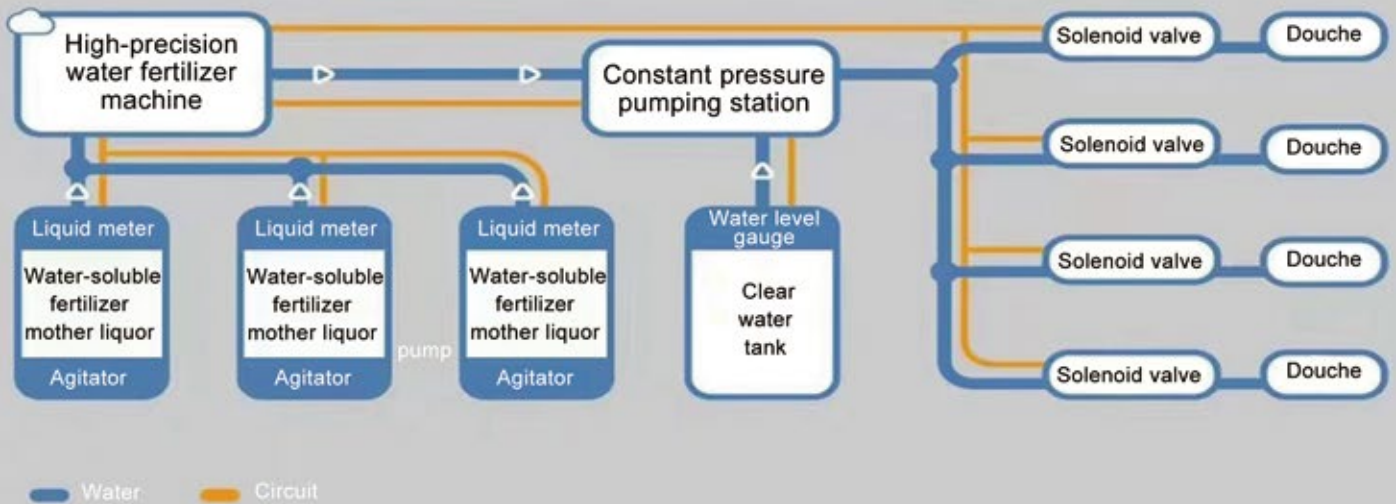
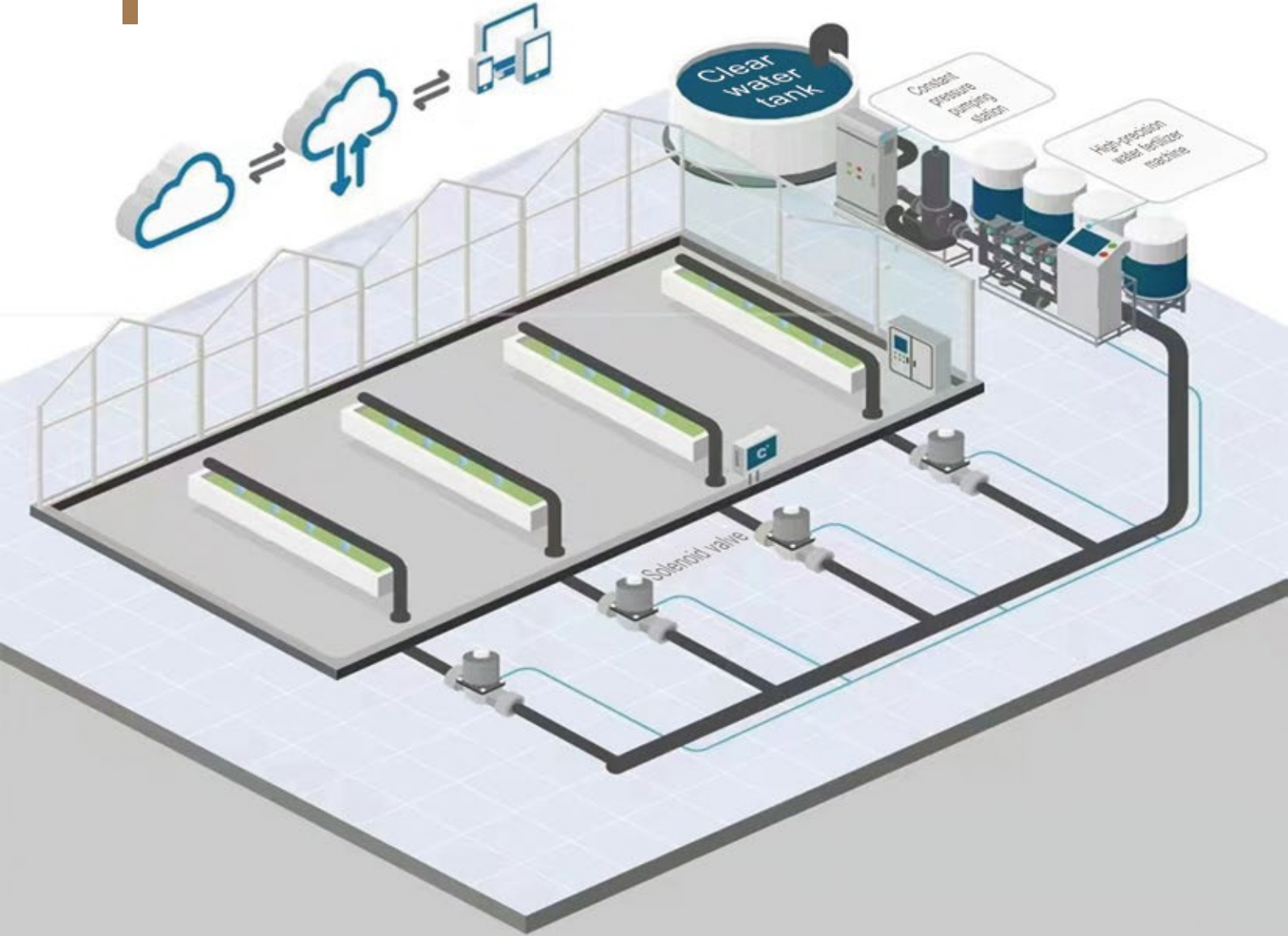


## 3W coil 3W-12-40VDC

|                        |                  |
|------------------------|------------------|
| Product Identification | 9DS              |
| Port Thread            | 1/8" DN6         |
| Pressure               | 0.5-10 Bar       |
| Material               | Nylon reinforced |
| Sealed Material        | NBR              |
| Fluid TEMP             | ≤60°C            |
| Voltage Range          | 12-24 DC         |
| Pulse Width            | ≥80 mSec         |
| Capacitance Required   | 2200-4700µF      |



# Irrigation Schemes





TEL: 0574-62983828

Website: <https://www.inovato-zm.com/>